THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

APRIL, 1848.

ART. I.—*Ether Inhalation in Convulsions.* By RICHARD C. WYATT, M.D., of Shelby county, Tennessee.

The extended use and happy influences of the sulphuric ether by inhalation, seem to be exciting the attention of the medical profession generally. The annexed report of its administration in a case of convulsions, from gastro-enteric irritation, may, I hope, be serviceable in proving its yet more extensive applicability in relieving, or at least mitigating, the anguish of suffering humanity.

In regard to the effects of the ether, in this case, the report shows that it was not entirely successful in preventing the convulsions, but that it greatly mitigated their severity, shortened their duration, and really lessened their number. I will here add that my apparatus was very imperfect, the vapor being so concentrated, on first dropping through the reed as to produce a sense of suffocation, and an inability to

inhale it; but in a minute more, becoming so weak from rapid evaporation, as to have but little effect. But imperfect as it was, I am fully satisfied that several paroxysms were prevented, and many others cut short, by its continued administration. And it seems very probable, that with a perfect apparatus and proper attention, they might all have been prevented, after commencing its use. Its influence on the pulse was prompt and decided,—lessening its frequency and increasing its fulness, to a remarkable extent.

Allow me to remark, that the case was not designed to be reported, until after the ether had been used, and as I had preserved only a general outline of its history, progress, and treatment, there is necessarily a want of fulness and precision in its details, which robs it of a portion of its interest.

J. B. G., aged 11 years, of weakly constitution, and rather delicate health, was taken, on the 3d or 4th of December, with sick stomach, vomiting, and constipation of the bowels, attended with slight fever. Having been, some two years before, severely and dangerously salivated, and his system subsequetly proven unusually susceptible to the constitutional influence of mercury, his parents were unwilling to resort to it again, if it could possibly be avoided. They gave him an emetic, with some other simple remedies at their command, but without effecting any improvement in his condition.

7th. I was summoned to visit him, and found him with severe fever; pulse neither quick nor very frequent; tongue red, and somewhat furred; nausea; occasional vomiting, and considerable soreness and tenderness, on pressure, of the epigastric and hypochondriac regions. Bowels constipated. ℞. Blue mass, v. to viii. grs., to be repeated at intervals of two hours. Large pepper poultice to be applied to the abdomen, and during the evening injections to be administered, and repeated at short intervals, till his bowels are moved.

8th. No action on the bowels; vomiting continues, with increased irritability of the stomach; skin generally cool;

pulse rather weaker, and perhaps a little increased in frequency; no secretory action manifest. Considerable prostration of strength, and of all the vital energies of the system. Gave him calomel ii.grs., sulph. morph. ¼gr; repeated at two hours' interval, till the third dose was taken. Sinapisms to the epigastrium and extremities; and injections continued, and repeated at short intervals till his bowels are opened.

9th—Morning. Patient grows worse. No action yet on his bowels, and apparently an entire suspension of all the secretions. Tenderness of the abdomen continues; thirst considerable, but almost incessant vomiting. The stomach rejects alike, medicine, aliment, and drinks of every description. Skin still cool; pulse weakened, and prostration extreme. Gave him calomel v.grs., and occasionally a little camphor julep and carb. ammonia, in a mucilage of gum arabic. Applied blisters to the epigastrium, and sinapisms to the extremities, to be frequently renewed and continued through the day.

Evening. Some slight evidence of ptyalism, but no reaction of system. Vomiting continues; skin cool; pulse, at times, imperceptible at the wrist. Complains of a little pain in the head, elicited from inquiry, on observing some contraction of brow, and slight dilatation of the pupil of the eyes. Gave him brandy toddy as often as his stomach would receive it, and continued the persevering application of mustard plasters.

11 o'clock, P. M. Injections operated on his bowels, bringing away a considerable discharge of fecal matter, after which he rested pretty quietly and slept.

10th—Morning. Patient apparently much better. Vomiting ceased; circulation nearly restored; desires food; soreness of mouth increased, with several small mercurial blisters on the tongue and cheeks; flow of saliva sufficiently free.

Evening. Somewhat unnatural expression of countenance; slight dilatation of the pupils of his eyes; occasional symp-

toms of strangury. ℞ Spirits nitre in demulcent and mucilaginous drinks.

11th. Summoned to see my patient, who is reported much worse, and "about to die." Learned that during the night he had been taken with convulsions, and had several before my arrival. Found him with pulse accelerated, but still weak; skin generally cool; pupils of his eyes largely dilated; indistinctness of vision; mind entirely rational. No action on the bowels since the one of Thursday night. Stomach irritable, and though not vomiting so incessantly as a few days before, yet rejecting every thing in the shape of medicine, even to gum water and rice gruel. He was taken with a convulsion a few minutes after my arrival. It commenced in the right hand and arm, but extended almost instantly to the trunk and head. Spasmodic action, particularly of the muscles of the face and superior extremities, violent and alarming. Duration of the paroxysm, probably five to eight minutes—going off gradually. Arterial action, during its continuance very perceptibly weakened. Enquired, as soon as he could speak, what was the matter with him. The convulsions being caused apparently by gastro-enteric irritation, aided probably, to some extent, by venous congestion of the brain, and no evidence of any inflammatory action in this organ manifest. And again; the condition of the patient requiring a stimulant as well as antispasmodic, it occurred to me that it was a fit case for the trial of sulphuric ether by inhalation. I prepared immediately for its administration; and by the time my apparatus (a reed secured in the inner fold of a thickly folded linen) was ready, had an opportunity of testing its virtues. Another convulsion threatening more violence than the last, coming on, the application was made—the linen being kept supplied through the reed. In less than a minute, I think, probably less than a dozen inspirations, the convulsive muscular action ceased, almost instantaneously, leaving the patient in quiet repose. Several persons present, amongst them a medical friend, were all agreebly surprised at its prompt and happy effect. Through-

out the evening there was a frequent recurrence of the convulsions, with sometimes only a few minutes' interval between the attacks; but as often would the ether, when properly administered, cut short their duration, and frequently, when used in time, prevent the paroxysm altogether. Indeed so evident was its salutary influence that the patient himself, after a few trials, would call for it eagerly and hastily on perceiving the approach of the fit. All secretory action having been again suspended, I had given him, about noon, some eight or ten grains pil. hydrarg.—applied blisters to the back of his neck, sinapisms to the extremities, and directed the frequent repetition of injections to open his bowels.

11 o'clock, P.M. No action of the bowels Blisters had drawn well, but again produed strangury. Pulse still weaker; and convulsions continue to recur. The ether giving out, he had some ten or twelve in an hour, very violent, and succeeding each other so rapidly as scarcely to give one time to go off before another would come on. A new supply of ether was received as the paroxysms began to lessen in violence and freqency; used it with the same success as before, but patient slightly delirious for some two or three hours, after which he rested, and occasionally slept.

12th—Morning. Patient free from delirium, but convulsions continue to recur—attacking now the left hand and arm, but extending directly to the trunk and head, as before. Arterial action quite weak, and pupils of his eyes largely dilated. No action yet on the bowels. Gave him three drops of croton oil in sweet oil and mucilage of gum arabic—rejected it by vomiting. Again five drops, on loaf sugar, but this soon followed the other. Continued sinapisms to the extremities; warm cataplasms to the abdomen, and the ether vapor for the convulsions.

In the evening, a violent paroxysm of strangury and restlessness was speedily relieved, by putting him fully under the influence of the ether; after which, he rested quietly some two hours.

At night, a copious discharge of urine. Rested better this, than during the preceding night.

13th. Patient's bowels freely opened by injections. Less frequency, and more fulness of pulse. Convulsions ceased, but frequent spasmodic twitches of the tendons of right hand and arm. Pupils of eyes a good deal dilated yet; says he feels much better; and gives some attention (which he did not yesterday) to surrounding objects. Desires food; but profiting by past experience, gave him less latitude, confining him rigidly to rice gruel as diet and drink.

14th. Found him still improving; rested well through the night; bowels opened by injections; still desiring food. Pulse yet rather weak, and pupils of his eyes continue dilated. Continue the rice gruel, with occasionally a little brandy and water.

15th. Patient improving. Appetite good; pupils of his eyes less dilated; pulse fuller, stronger, and less frequent; bowels open. Allowed chicken broth for his diet.

After the date above, my patient continued to convalesce, with some little attention to regimen and the condition of his bowels; yet was it nearly a week before he was able to walk, even about his room, though after this convalescence went on more rapidly, and he was soon able to return to his school.

Shelby county, Tenn., December 29, 1847.

ART. II.—*Datura Stramonium an Emmenagogue.* By B. F. JONES, M.D., of St. Louis county, Missouri.

Distinguished practitioners of medicine doubt whether there be any medicine known, capable of so influencing the uterus, as to compel it, even when healthy in other respects to secrete the catamenia. Hippocrates made no pretensions to a knowledge of any such medicine, nor did Sydenham;

and Boerhaave's catalogue of emmenagogues comprehends only such medicines as are conspicuous for determining to the pelvic viscera—stating that "we have no uterine remedies but sudorific determined to the uterus." Dr. Eberle tells us, "It is very doubtful whether any of the articles which have hitherto been employed for this purpose possess any direct influence over the uterine secretions;" and such, I presume, is the experience of physicians generally.

In reasoning upon this subject, it occurred to me, that inasmuch as there was a medicine (*the secale cornutum*) capable of exerting a specific impression upon the uterus, and forcing it to the energetic performance of *one* function—the expulsion of the ovum—there was nothing unphilosophical in the hope that a remedy might exist capable of urging upon it the elaboration of *another*—the secretion of the catamenia.

If nature, in the exuberance of her munificence, had vouchsafed to us a medicine endowed with capability to abridge the parturient effort, it was scarcely expecting too much from her beneficence to hope that among her rich *arcana* was another capacitated to place the uterus in a condition for the exercise of its function of reproduction. In the absence of one, the other would not unfrequently be useless—and to that extent mar that beautiful harmony, and adaptation of means to ends, of which nature is so observant in all her operations.

Persuaded of the philosophy of this view, as far back as 1839, when I practiced my profession in the city of Chihuahua, in Mexico, I was led to experiment with a great number of powerful plants, of recognized capability strongly to impress the organism, with the hope of discovering among them a special relevancy of action for the uterus, during the suspension of its periodical function. The datura stramonium, from the energy it displays in affecting the nervous system, without exciting the circulation, together with its simultaneous relaxing effect upon the bowels, with the increase of urinary and dermoid secretion, presented strong claims to my attention in this experimental inquiry.

The result of my investigation is the belief that stramonium does possess the power of imposing upon the uterus a renovated secretory effort, to the same extent that mercury does upon the liver, or the salivary glands, *ceteris paribus*, and is therefore eminently entitled to the cognomen of an emmenagogue; a distinction that cannot of right be conferred upon any other known article in the materia medica. So that properly there belongs to each of the important classes of abortives and emmenagogues, but one article—secale cornutum, and datura stramonium.

I will endeavor to illustrate the above views by the notes of a single case, which, though the most prominent, is by no means isolated upon my case-book.

Mrs. K., æt. 31, in the spring of 1837, had a violent attack of congestive fever, for which she was salivated. I was called to see her October 1st, 1841, four years after the attack of fever, for the first time, to prescribe for a suppressed menstruation, which she informed me, had existed for four years. She had been in the hands of numerous physicians, who had rung the changes on all the emmenagogues, remedies local and constitutional, known to the books, or the tradition of the "mothers." Her general health was miserable, and a thousand and one nervous phenomena, inseparably associated with a protracted suspension of uterine secretion, made existence a burden. I gave her four of the following pills:

℞. Prot. chlo. hydg.
P. rhei opt. ää. gr. xxiv.
Gm. gamboge, gr. viij.
Acacia mucilaginis, q. s. ut fiant pil. ponder. gr. v.

After the operation of the pills, I put her on the tinct. semen. stramonii, prepared by the following recipe:

℞. Semen stramonii uncias iv.
Alcoholis diluti octantem unum.
Degere per dies decem, et per chartam cola.

I directed her to take twenty drops, three times a day, for

the first day, adding a drop to the dose each day, and to continue it, either until it produces dizziness, vertigo, *or the catamenia.* In ten days after I first saw her, I was summoned to her again, and learned that the day previous she had commenced evacuating blood from the bowels, in small quantities and at irregular intervals. I gave it as my opinion that this was a vicarious evacuation, and the harbinger of a regular catamenia *per vias naturales;* and directed her to suspend the medicine for two weeks, and then resume it again in the same dose last taken, (xxx. qtt., *ter die,*) to be increased as before directed, and to report to me in two weeks thereafter. At the expiration of the two weeks from the resumption of the medicine, she reported a regular and plentiful catamenia. From this time she was perfectly regular, until she became pregnant, and in due course of time was delivered of a healthy child. She entirely regained her health, and has subsequently borne two other children.

St. Louis County, Mo., Dec. 12, 1847.

Art. III.—*Reports of Cases of Disease; with Remarks.* By John Dawson, M.D., of Jamestown, Ohio.

Two Cases of Periodical Asthma Treated with Quinine. Since sulphate of quinine has come into general use as a remedy in febrile and intermittent diseases, its application has been suggested to other diseases different in some of their characters, but agreeing, or being supposed to agree, in some pathological element common to them all. Among these complaints is asthma. By B. R. Hogan, U. S. A., a notice concerning the efficacy of quinine as a remedy in asthma, was published some years since in the American Medical Intelligencer. It is there stated that, from its happy influence in relieving congestion in our autumnal fevers, he was *a priori* induced to administer it in asthma. In every instance,

he adds, in which it was given, the complete relief of the dyspnœa, and termination of the paroxysm succeeded in an hour. It is further stated that the paroxysms were as '*tractable*' to the influence of quinine as the slightest quotidian. John A. English, M.D., of Alabama, it seems, also used the drug in a long standing case of asthma with complete success, which had resisted the usual remedies. "Four grains of quinine operated like a charm, and relieved the patient in thirty minutes."

Published to the world, such testimony has induced various practitioners to give the article a trial in the complaint before us. Before I used it myself, I was informed by several practitioners of good observing faculties that they had made trials with it, and found it successful in arresting paroxysms of the complaint, in patients that had long been addicted to it. A physician, subject for years to very distressing attacks, for which he had used lobelia with only temporary benefit, assured me, that quinine, in tolerably large doses, had done him more good than any thing he had ever used. He related to me the case of a friend of his, who had labored under habitual attacks of a very annoying character, who also derived great benefit from quinine.

Induced by such flattering testimonials to give the article a trial, I selected some cases that were considerably characterized with the law of periodicity. These, in a brief manner, I will now detail.

Mrs. K. B., 51 years old, and never having borne any children, was attacked about fifteen years since, during the latter part of spring, with sensations of sleepiness, followed by uneasiness in the chest, which gradually ultimated in a paroxysm of asthma. Since the first attack, the complaint, as she informed me, has recurred *annually* about the same season of the year. Generally at the approach of a heavy shower of rain, attended with much thunder and lightning, the malady makes its advent. The presence of the *cirrus*, *cumulus*, or *stratus* variety of clouds, seems to produce no uneasy sensations; but no sooner

does the *nimbus* or *rain-cloud* makes its appearance in the atmosphere, than she is seized with stricture of the chest and great difficulty of breathing. A paroxysm of this kind, without medicine, lasted from three to twelve hours, leaving the system in a very debilitated condition.

Three years ago, I was called to see her, and found her laboring under a severe paroxysm, which had made its appearance simultaneously with the approach of a thunder-storm. I prescribed quinine in large doses. Feeling a deep solicitude in the result of the prescription, I waited to see its effects. From the first dose I could see none. The second was followed by more or less mitigation in the symptoms; and not long after the exhibition of the third, the most urgent phenomena subsided.

Encouraged with this result, I advised the lady, the year following, to anticipate the paroxysms, by commencing the use of quinine some four or five weeks previously to their expected period of recurrence. This she did; but during the month of May she was, as formerly, again severely afflicted.

This year (May 29th, 1847,) I was requested to see her again. I found her, as previously, in great distress. In the afternoon of the above date a very dark cloud made its appearance in the west, which in a short time proved to be charged with hail that caused great destruction to the crops of grain and fruit. As this cloud approached, the difficulty of breathing and constriction of the chest were developed, and carried to such an extent as almost to produce suffocation.

Quinine was again administered in about 5 gr. doses. Relief followed, not, however, as promptly as it had done before.

Case II. M. C., a gentleman sixty years old, of a plethoric habit and with some predisposition to asthma from hereditary taint, informed me that, about twenty-four years ago, after having heated his system very much, from which he took a bad cold, he was seized with a paroxysm of asthma, for which he took medicine at the time and got bled. The constriction

and difficulty of breathing passed off after a few days, and he enjoyed, as previously, very good health. At the accession of warm weather the following spring, he had another attack; and since that time he has suffered *annually* during the month of either May or June. As in the previous case, the fits have generally, if not invariably, been ushered in by the approach of a thunder-shower. After the first paroxysm has made its appearance in the spring, he enjoys but little immunity from the complaint until the weather clears up, the atmosphere gets dry, and warm weather becomes confirmed.

For the relief of these distressing fits, this gentleman got into the habit of taking nauseants, which gave him more relief than any thing he had used. At my instance, being in my office at the time with a paroxysm upon him, he took a large dose of quinine. He afterwards took several doses while the distressing symptoms were upon him, but, as far as he could see, with little or no benefit.

If this patient was not mistaken, the quinine produced rather a singular effect on his bowels. He took the article in from five to ten grain doses, and he informed me that in every instance it produced, or rather its use was followed by bloody discharges from the bowels, an affection, as I understood him, that he had never experienced before nor has felt since.

Case. III. For the following case I am indebted to Dr. Wm. H. Harper, of Lima, Ohio.

It occurred to a girl eleven years old, who had suffered from an attack of hooping-cough, which was followed by periodical paroxysms of asthma. These came on once every month, and had resisted several plans of treatment.

The treatment was commenced by Dr. Harper with cathartics, and alterative doses of blue pill. Afterwards quinine, in three grain doses, twice a day, was administered during the time that the system was free from the paroxysms. She had but one attack of the disease after this treatment was instituted, which was much lighter than what she formerly expeperienced. The Doctor saw the patient fifteen months after

she had been under his care, and she still remained perfectly exempt from the malady.

Remarks.—Such cases as the above are more numerous than might be supposed. During the last five or six years I have heard of other cases, not identical, perhaps, with those above noticed, but afflicted in such a manner as to be worthy of being styled *habitual asthmatics.*

With respect to the character of the exciting cause, it doubtless differs in different cases. Those we have noticed were evidently connected very closely with the barometrical condition of the atmosphere, and also with the season of the year. When the proper time of the year approached, more or less uneasiness in the chest was experienced, but the paroxysms were not excited until the barometer indicated the approach of a heavy fall of rain.

In neither instance did the disease seem to depend in any respect on *hay*, as is supposed to be the case with what is now in England termed "*hay asthma.*" The paroxysms came on, as far as I learned, in both cases, some considerable time before the harvesting of hay in this region commenced.

After the complaint has made its advent, the period of its duration, I believe, has been but little, if any at all abridged, by any plan of treatment. Emetics, nauseants, etc. it is true, have operated as palliatives, mitigating the dyspnœa for the moment, but incapable of abridging the period of the disorder. It seemed that the complaint had a certain cycle of changes through which it had to run, and from which it could not be moved. For the accomplishment of this, a period of some two or three weeks has been required once a year since they have been first afflicted.

With the result of the quinine in these cases I was not favorably impressed. A more extensive use of the drug might have led to different conclusions. It seems that it has been used not only in our own country with good effects, but in the *Medical Gazette* of England, Dr. Gordon states that he has been completely successful in emancipating two persons from

the disorder with the sulphates of quinia and iron. These had been afflicted with annual attacks of *hay asthma* for fifteen or twenty years.

Since the attention of physicians has been called to lobelia inflata as a remedy for asthma, I am of the opinion that it has shown itself to possess as much control over the pathological condition in several varieties of this malady as any other drug found in the materia medica. All experience proves that the complaint, when amenable to remedies at all, shows itself to be more controlled by something that will relax the general system, such as emetics, nauseants, etc., than anything else. The powers of lobelia to produce these effects are unquestionable, and it is on this account, without doubt, that it has obtained so much reputation as a remedy in the complaint before us. Like tobacco, it possesses the power in a preeminent degree to relax the system; but the relaxation, nausea, vomiting, etc. which it produces is not so intense. It is hence a much safer article in all those diseases where the use of either is indicated, and must take a very respectable rank as an available therapeutic agent in the hands of the practitioner.

A Case of Diabetes Mellitus.—L. M. consulted me in the spring of 1845, and informed me that during the year 1839 he had an attack of intermitting fever, of the quotidian type, which lasted for six months. After this passed off, he experienced some trouble in his urinary organs, which ultimated in diabetes mellitus. During a period of five years, as he informed me, he tried for medical aid some very skilful practitioners, without experiencing anything more than a palliation of some of the more urgent symptoms.

His condition when he applied to me was as follows: Age fifty years, temperament lymphatic and sanguine, frame thin and light; before contracting the disease, he weighed 165 lbs.; at the time I examined him, 150 lbs.; tongue fissured and slightly coated, with a bitterish taste in the mouth; respiration natural; pulse 112; sensations of too much warmth in the skin, but perspired very little; appetite craving; thirst very

urgent; bowels costive; frequent disposition to pass urine; urine decidedly sweet and very clear, and the quantity much more than natural; felt at times inability to retain the urine. The negative symptoms were, no pain in the kidneys or any of the urinary apparatus. Prescription, muriatic acid three times a day, and aperient pills.

July 26. The patient used the acid and pills for a period of five weeks, at the end of which time his pulse was found to be from 104 to 106; skin slightly moist; thirst not so urgent; tongue still coated; something like a burning sensation that passed from the toes to the hips; desire to pass urine not so frequent; urine of a slight straw color, and still saccharine even to the taste; bowels more regular than previously; general system evidently undergoing emaciation.

Above prescription continued, and an animal diet ordered.

August 11. Pulse 100; tongue coated; taste in the mouth bitterish in the morning; thirst moderate; temperature of the skin slightly augmented; skin rather dry, though he has occasionally perspired a little; appetite not so craving; discharges from the bowels natural and regular; voids urine from seven to nine times in twenty-four hours, passing about a pint each time; urine less colored than formerly, and decidedly sweet.

September 8. At this date the patient was weighed, and it was ascertained that from the time he commenced taking the medicine he had lost in weight four and three-fourth pounds. His pulse at this time was found to have increased in frequency, being 116; thirst somewhat diminished; appetite nearly natural; tongue not as much coated as previously; chills in the evenings; urine not apparently altered in quality; about nine pints voided every twenty-four hours; free from pain, except a slight soreness in the muscles of the thighs.

Prescription, muriated tincture of iron.

November 2. Pulse 120; respiration 20; tongue slightly coated; taste bitterish; thirst still very urgent, drinks most in the evening; urinates very frequently, passing much more than the usual quantity; urine still sweet; a burning sensation

along the urethra during micturition; a sensation of weakness and relaxation after taking food.

The weight of the patient at the above date was 134 lbs.

December 11. Finding the treatment with the acid and iron to be of little or no service, I ordered one drop of creosote in mucilage three times a day. At the time of this prescription the weather was cold—a circumstance that made the patient worse than previously; his appetite had failed; his muscular strength was impaired; pulse not increased in frequency; a cough had made its appearance; the feet and legs were considerably swollen, and the bowels costive. The patient died after having used the creosote for ten or twelve days.

Remarks.—The disease in this case in running its course occupied a period of between six and seven years. During the greater part of this time the patient, as he informed me, voided urine in excess. The quantity discharged at different periods varied with the different kinds of diet used, the circumstances by which he was surrounded, medical treatment, etc. Throughout the whole period, the color of the urine was more transparent than natural, being occasionally as clear as common well-water. Sometimes the odor was considerable, at other times slight. The amount of sugar contained in the urine was never at any one time ascertained. After the case came under my care, I sent a specimen of the urine to a chemist to have it analyzed; this, however, was not done.

Constantly, from the time the patient was invaded, there was a gradual loss of flesh. This, however, was not rapid at any period during the course except during a few of the last weeks of the patient's illness. All the time while the emaciation was going on, the appetite was craving, and the amount of food consumed was much above the ordinary requirements of nature. The trouble in the digestive apparatus consisted not so much in a want of ability to perform its functions, as in a *perverted* action, by which the elements designed for nourishment were converted into sugar.

Of the remote and proximate causes of this case we ascercertained but little. It did not, as is usually thought to be true of such cases, follow the protracted use of luxurious articles of diet. The patient had for most of his lifetime been in circumstances by no means favorable to such a course of living; he was a farmer by occupation, used a farmer's fare, and labored more or less all his life. His disease, as previously remarked, followed a protracted attack of intermittent fever, and it may be that its origin was closely connected with some of the alterations in function or structure left upon the system by that complaint. Nothing in the progress of the case threw any light on its pathology. Shortly after the first attack there was more or less uneasiness in the urethra; this, however, mostly subsided, being afterwards only occasionally experienced. The symptoms did not indicate any disease in the kidneys or any other part of the urinary apparatus.

The opinion of the older authors, that the mischief is mostly confined to the urinary organs, is not so plausible as that of modern writers, who locate it principally in the digestive apparatus. Maitland, we know, found sugar in the stomach of a diabetic patient who had been living exclusively on roasted beef for three days previous to the autopsy. McGregor, we also know, has recently traced the existence of sugar in the blood. These facts go to favor the position that the malady, instead of having its seat in the kidneys, depends upon some fault in the organs of digestion—something like a perverted condition, that renders the stomach not only unable to digest sugar, but compels it to manufacture this substance out of articles that previously contained none.

From 1839 until I saw him in 1845, this patient was more or less under the influence of drugs. From the fact that during this time he had consulted a number of medical gentlemen, including, as I understood, some very eminent, I inferred that he had been subjected to the use of the most approved remedies of our elementary works; and as he had received no benefit from anything used, I concluded it a fair case for experiment. In his twenty-second Aphorism, Hippocrates observes:

"All diseases which proceed from repletion are cured by evacuation, and those which proceed from evacuation are cured by repletion, and so of the rest: contraries are the remedies of contraries." This we call in our day the antipathic or enantiopathic method of employing remedies, and the axiom adopted is, "*Contraria contrariis opponenda.*" Something similar to this method I concluded to adopt in the case before us, and consequently directed the use of muriatic acid. Under the use of this drug the patient was kept for a period of about six months. During the first two months there seemed to be a slight amendment; the quantity of water discharged was not so great, nor was it thought by the patient to be so saccharine; moreover the thirst and craving appetite were about this period somewhat moderated. But after this the patient retrograded, and notwithstanding the acid was increased to the full amount that the stomach would bear with any degree of convenience, and the dietetic regulations pretty well observed, the patient continued to retrograde, and, as a consequence, the medicine was discontinued. A short time before the patient died, I concluded to try the suggestion of Watson relative to the use of creosote. This article was taken in doses of one drop with mucilage three times a day. Owing either to the late stage of the complaint in which it was used, or perhaps to a want of efficacy in the drug itself, there was no perceptible improvement made in the disease.

At the termination of this case, disease of the lungs was developed. To what extent this existed, and the relations it had with the fatal result, we had no means of determining. It seemed probable to us that the lesions of the chest were entirely consequent upon the corrupted and impoverished condition of the circulating mass. The long confinement to which the patient was subjected, by which the ventilation of his blood was prevented, had, no doubt, a tendency to favor the circumstances necessary to the deposition of tubercles. As far as I could learn, the dietetic regulations during most of the time that this patient was afflicted, were by no means such as could be desired. Had he been subjected to Rollo's

plan of living exclusively upon an animal diet, or to that of Bouchardat, of using gluten bread, (bread in which the starch has been separated almost entirely from the gluten,) the result might have been different. It is very difficult, however, to confine a patient to either of these plans. The best course, perhaps, would be to allow the patient to combine them or use them alternately.

A Case of Ascites, resembling Pregnancy.—On the 8th of August, 1843, I was called on to ride to the residence of Mr. S. to see his wife, who, he said, was about to be confined in childbed. Having arrived at the house, I was met by a midwife, who informed me that she was on her second visit, and that she had made an examination, and found that "the mouth of the womb had growed up." To get more of the history of the case, I turned my attention to the lady herself. She informed me that she had not been well for the last two years, but that about nine months or a year since she had been troubled with slight bearing down pains, difficulty in breathing at times, "inward weakness," and loss of appetite. Continuing for a while, these symptoms were followed by an enlargement of the abdomen and occasional sensations resembling the motions of a fœtus, and, as a consequence, she concluded that she was pregnant. When I made my examination, the attitude was that of sitting up in a half recumbent posture on the side of the bed—a position in which she had fixed herself, as I understood, for the purpose of being delivered by the midwife present. The countenance was sallow and emaciated, tongue slightly coated, taste depraved, and breath fetid; the general surface was dry, rough and shrunk, except the abdomen, which was about as much distended as was usual for her during the last period of pregnancy, and the feet and legs, which were anasarcous; the pulse was feeble and rather small; there was a nervous irritation that kept her from sleeping but little through the night; thirst pretty urgent; and bearing down pains that came on every fifteen or twenty minutes. So entirely periodical were the pains that little doubt was en-

tertained by the midwife or friends of their being the result of parturient efforts of the uterus. Not suspecting anything but pregnancy, and being informed by the midwife that the os uteri was in an unnatural condition, I determined to make an examination per vaginam. The vagina was found relaxed and covered with an unhealthy offensive secretion. The os uteri was the seat of a scirrhous lesion, and was almost completely obliterated by the morbid growth; extremely irritable and tender to the touch, it was also the point from which radiated sharp cutting pains, which recurred periodically, and resembled to a very considerable extent the pains of labor. Placing my hand upon the abdomen, the sense of fluctuation, form of the abdominal tumor when the patient was lying on her back, and absence of what I considered the essential signs of pregnancy, clearly indicated that it was a case of *ascites* instead of pregnancy.

Remarks.—There was something of interest in the diagnosis of the above case. In favor of its being pregnancy, we had the abdomen to become gradually enlarged, attended with a swelling of the feet and ankles; the quickening sensations which the patient imagined herself to have experienced at the fourth or fifth month of her disease; the bearing down pains she experienced, which came on periodically, and so much resembled the pains of labor that the patient herself—who was the mother of eight or ten children, and who on this account, it might be presumed, ought to have some judgement—was entirely deceived; and lastly, the cessation of the catamenia simultaneously with the advent of the complaint. All these taken together would naturally do something towards making out, in appearance at least, a case of pregnancy.

As going to show that it was a case of ascites, we had the general form of the abdominal tumor, its elasticity, the sense of fluctuation on percussion, and, negatively, the absence of sounds corresponding to those of the fœtal heart and of the circulation of the blood in the veins and arteries distributed through the gravid uterus, (placental souffle.) Concerning the

diagnostic value of the condition of the os uteri—which, as before remarked, was scirrhous—we can tell but little from our own experience in such cases. It might reasonably be supposed that conception could not take place when the os uteri was the seat of malignant disease. As a general rule, this would probably hold good; yet there are a few instances recorded where pregnancy has been complicated with malignant fungoid disease of this part. Dr. James Johnson had a case of this kind in April, 1840.

Perplexed as physicians frequently are in making out the particular character of a disease, the subject of diagnosis cannot receive too much attention. Indeed, even after great diligence assisted by long experience, many of the enlargements of the abdomen are of difficult comprehension. It is known that the celebrated John Hunter once mistook a distension of the bladder for ascites, and absolutely tapped it. Enlargements occasioned by hypertrophy of the liver, polysarcia adiposa, ovarian dropsy, etc. are once in a while well calculated to embarrass.

There is another enlargement, an example of which I witnessed in a female some years ago. While laboring under a paroxysm of hysteria, the abdomen became very much distended, stretching the fibres of the parietes to the utmost degree. While in this condition I arrived, and supposing from the great pain of which she was complaining that it was a case of pregnancy, I examined the uterus per vaginam, and found that it was in an unimpregnated condition. Before I had been in the house an hour, the distension and pain left the abdomen and seized upon the chest. Between these two cavities the swelling alternated, until the patient was relieved by purgatives and antispasmodics. The distension of the chest seemed to arise from the rushing up of the viscera of the abdomen against the diaphragm—a circumstance that made the respiration very laborious. What the trouble was which gave rise to such anomalous phenomena seemed difficult to determine. The bowels must have been distended with gaseous matter of some kind or other; and besides this there

were violent spasms in the abdominal muscles and diaphragm. It is cases of this character, I presume, that, for want of a more significant name, some writers denominate "hysterical tympanitis." I learned that this woman had previously suffered from such attacks, and that she had been relieved by something like the same means that I employed.

With respect to the prognosis of the above case of ascites I was closely interrogated by the lady herself. "Is it possible, doctor, for me to get well?" she inquired. I answered, "I think, Mrs. S., that you will die." Convinced as I was from all the circumstances connected with her case that the issue would be fatal, and knowing her to be totally unprepared to die, nay, even very wickedly disposed, I could see no impropriety in giving her candidly my opinion of the result. Unfavorable prognostications—by which I presume is meant telling patients they must die, when we believe such must be the result—are thought to be not in accordance with good etiquette, for in many cases very much may be done to the advantage of the patient by invoking the influence of hope, by keeping back probable results, and exciting the mind strongly in favor of recovery. Of the correctness of this course as a general rule we have not the shadow of a doubt. Our case, however, was one of a peculiar character—a malignant disease of the os uteri complicated with dropsy, making together a set of lesions of a character not at all ambiguous as regarded the final result. When such proves to be the case—when, indeed, we are satisfied that it is impossible that the body can be saved—what impropriety is there in making patients acquainted with their condition, that, if possible, they may have time to make an effort to save the soul? After I informed Mrs. S. of her condition, she became penitent, and until her death constantly implored the forgiveness and mercies of her Creator.

A Case of Purpura Hæmorrhagica, following the protracted Use of Sulphur.—The subject of this case was a boy nine years old. He had been taking sulphur for some purpose or

other, and becoming fond of it, used a considerable quantity without the knowledge of his parents. While engaged in this practice, he went into the water and bathed. Swelling of the extremities, stiffness of the joints, with chills and fever, followed. For the relief of these things he took emetics, cathartics and diaphoretics, and was better for a few days. Exposing himself again, however, fever supervened, followed by periodical pains in the bowels and vomiting of blood. A clyster brought away a portion of coagulated blood from the bowels, after which the periodical pains measurably ceased. The patient was then put on the use of quinine and continued taking it for two days in small doses. The pains in the bowels and bloody discharges returned while taking the quinine, and deep purple spots made their appearance on various parts of the body, together with strong symptoms of anæmia and general debility. After the occurrence of these symptoms, the patient was put upon the use of sulphuric acid and quinine in proper doses, with an occasional dose of Peruvian bark and rhubarb. An amendment was quite obvious for several days. The periodical pain, however, which was previously experienced in the bowels, seated itself in the head, the urine became highly colored, depositing a dark sediment, and the feet and face grew edematous. Quinine dissolved in sweet spirit of nitre was then given in proper doses, and the patient was ordered to be bathed in a decoction of oak bark. Under the use of the nitre and quinine he improved and ultimately regained his health. The bathing in the oak bark decoction was discontinued in consequence of its producing febrile excitement.

Remarks.—The cause of the disease in the case under consideration is perhaps not easily solved. It was attributed by the friends, and perhaps rightfully, to the sulphur taken. That sulphur is capable of producing important alterations in both the solids and fluids is evident from the fact, that silver articles become discolored in the pockets of persons who have been for any considerable time under its influence; and it is also known that the odor of hydrosulphuric acid is communicated

to the sweat, urine and milk of persons who have been taking it for any length of time. By the German physicians it is called a resolvent, and by a late English writer of great distinction it is classed with liquefacients, which signifies medicines that are supposed to check the solidifying while they promote the liquefying processes in the animal economy; they loosen and soften texture, and in this way it is supposed that they assist in the removal of adhesions and exudations. This effect is strikingly seen in the use of mercurials, which belong to the same class, in the removal of deposits of coagulable lymph, glandular indurations, and enlargements and thickening of membranes—as of the periosteum, for example—and also very strikingly in its power of rendering the gums spongy.

Considered, then, as possessing liquefacient properties similar to those of mercury, antimony, etc., we can see no good reason why it may not produce those alterations in the blood which characterize purpura hæmorrhagica. Reasoning *a priori*, this would be the only conclusion to which we could come. We would suppose that it would diminish, if taken for any length of time, the normal quantity of the solid constituents, the blood corpuscles and the fibrin, while it would relatively increase the quantity of water. In the only case that we know of in which the blood was analyzed, Routier found 1000 parts of the blood to contain: water, 795·244; solid constituents, 204·756; fibrin, 0·905; blood corpuscles, 121·701; residue of serum, 83·405.

Although from this analysis the blood in purpura does not appear to be identical in composition with what obtains in spanæmia, it is nevertheless decidedly poor—a condition which has induced Simon to class purpura with such diseases as anæmia, hydræmia, carcinoma, scrofulosis, chlorosis, scorbutus, etc.

A Case of Dengue terminating in Gangrena Ossium.—During the years 1841-2 dengue—or, as it is popularly termed, '*saint measles*'—prevailed here as an epidemic, affecting all classes of persons, and producing very much distress, but generally

attended with slight mortality. The symptoms chiefly entitled to the character of pathognomonic were severe pains about the articulations at the commencement and during the course of the malady, an anomalous eruption on the skin, and intolerable soreness of the muscular system; inflammatory fever was constantly associated with these. As a general rule, the sequelæ were neither numerous nor grave. One exception occurred, however, and our design in reporting it is the hope that it may assist us in arriving at proper conclusions concerning the pathology of dengue. The case to which we allude is that of

M. T., aged sixteen years, of rather corpulent habit and good general health previous to contracting the disease. In the month of February, 1843, he was taken sick, and being called to see him, we recognised his disease as being dengue. The febrile orgasm was of the synochus grade, attended with the usual symptoms, such as headache, thirst, dry skin, coated tongue, etc. The arthropathic affections were very violent, but as far as we noticed there was no eruption on the skin. The usual remedies for such indications were used, together with a decoction of eupatorium perfoliatum, a remedy of considerable reputation with the people of the neighborhood for the disease. More persistent than usual, the malady seemed to leave the tissues about the joints, and seat itself upon the bones in various parts of the system. After much suffering from this cause, caries made its appearance and has continued until the present time. It was first developed on the inferior extremities, afterwards on the scapula and the molar bone on the left side of the face. At the present time the shaft of the right thigh bone is the principal seat of diseased action. Sooner or later after the complaint became seated on any of the bones, sinuses were established, leading from the soft parts down to the seat of disease, from which sanies of an offensive character issued.

In the family of which this young man is a member there has never been, as far as I could learn, any hereditary predisposition to any of the diseases supposed to favor the occur-

rence of caries; and the young man himself, as has already been remarked, was healthy until he contracted the malady which has resulted in his present affliction.

From the course of this case we suppose it might reasonably be inferred that dengue in its onset and progress affects tissues closely allied to the osseous. Indeed, the arthropathic affections present in every case warrant this conclusion. Bones of a spongy texture, *cæteris paribus*, such as the vertebræ, astralagus, and other members of the tarsus and of the carpus, the sternum, and the heads of the long bones, are more liable to attacks of caries than those that are compact. In the case before us, the malady seated itself and spent its principal force upon the most compact portions of the bones, and showed no preference for those of a decidedly spongy texture.

The parts originally attacked by the carious affection have now healed up, while new ones on other bones or on other parts of the same bone have made their appearance. The general system at present, however, seems in a condition to promise ultimate recovery.

February, 1848.

ART. IV.—*Remarks on the Use of the Letheon, with Cases.* By J. F. SANFORD, M.D., of Farmington, Iowa.

There has been perhaps no discovery in the Medical Sciences, either in ancient or modern times, the importance of which has been so great, as that of Letheon, and none which has been established upon a basis so incontrovertible, or the vast utility of which has been so speedily acknowledged. This result, so satisfactory to the feelings, and so honorable to the genius of the discoverer, is mainly attributable to the alacrity with which the mass of the medical profession throughout the world, have subjected it to the test of experience, and the facility with which its intrinsic merits may be satisfactorily demonstrated.

A truth in philosophy, and particularly medical philosophy, possesses an importance in exact proportion to its agency in forwarding the great ends and objects of science—the mitigation of the "thousand ills that flesh is heir to." And when such is the certain effect of its establishment, too much experience cannot be adduced in its support, and it cannot be rendered too familiar to the common mind. Influenced by these reflections—notwithstanding that the sanction of the eminent and scientific in our profession, has placed the utility of the Letheon beyond dispute, I have resolved to communicate to the profession the result of my experience in its use, hoping, that, if I present nothing that is new, it will at least interest some to hear that the benefits of this great discovery are not confined to the cities and hospitals of the eastern and middle states.

The first case in which I applied the ether, was that of a young lady, thirteen years of age, of nervous temperament and delicate constitution, who, two months previous to my seeing her, had suffered a severe fracture of the first and second phalanges of the middle finger of the right hand. Various applications were made to the wound at the time by the parents, who did not regard it as a serious matter; but severe inflammation of the neighboring tissues supervening in a few days, a quack living in the vicinity was called in, who made use of numerous stimulating applications, to arrest as he termed it, the mortification, and repress the fungous growths. The inflammation continued, however, to increase in intensity from day to day, and despairing of aid from "Doctors," the parents dismissed their attendant, and began the application of emollient poultices. Under this treatment the surrounding inflammation began to decline, and in two weeks, had subsided except in the wound, which presented a very irritable appearance and was exceedingly sensitive and painful; finally the soft parts began to slough away, the first phalanx in a fractured state was thrown off, and the process of inflammation and sloughing was gradually extending to the hand. At this stage of the case, I was called on to amputate the finger.

When I arrived at the house, I found my patient sitting on the bed-side, sustaining the diseased member in an elevated position—the only way in which she could have any ease—and sobbing aloud in anticipation of the pain of the operation. She was very much emaciated and exceedingly irritable. A brief examination convinced me, that unless some means were used to prevent it, severe constitutional effects would follow an operation upon so delicate a subject; I suggested the ether to a medical friend who accompanied me, who, although he had never witnessed its application, was willing to make the trial. After every thing was arranged, and the proper directions given to the patient and friends, I saturated a linen handkerchief with sulphuric ether, and partially enclosing it in a piece of silk, applied it to the nostrils and mouth of the patient; in three minutes, without evincing the slightest evidence of exhileration, she was perfectly etherized—lying in a relaxed condition—the eyes turned up, and an expression of pleasure upon the countenance. The operation was at once proceeded to—the diseased finger was firmly grasped—a semi-circular sweep of the knife, half an inch anterior to the metacarpo-phalangeal articulation was made—transfixion effected, and a flap formed anteriorly—disarticulation completed the operation, during which, notwithstanding the exquisitely sensitive condition of the parts, the patient manifested not the slightest evidence of pain. A few moments afterwards consciousness and sensibility returned, but no pain or other disagreeable symptom was complained of, and from this time my patient rapidly improved in strength and flesh. The wound healed kindly by the first intention—no fever or excitement occurred during the progress of recovery, and all things went on well.

The next case in which I had occasion to use ether, was that of a lady, æt 32, of nervo-bilious temperament, who had suffered for three years from an irritable tumor of the right mamma, about the size of a hen's egg. Without any appreciable cause the tumor began to grow three years since, and in that time, attained the size mentioned above. Usually, it

was hard, dense, insensible, and slightly adherent to the surrounding parts, but occasionally, from cold or other causes, would become sensitive and painful, involving the surrounding tissues in inflammatory action and exciting great constitutional disturbance. At these periods it was also considerably enlarged. Being consulted during one of these paroxysms, I treated it upon the antiphlogistic plan, which soon relieved the patient, and after the inflammation subsided I was requested to take charge of the case, with a view to effect a permanent cure. I of course advised the removal of the tumor with the knife; this was consented to, and I proceeded to the operation, after succeeding in the most satisfactory manner in etherizing the patient. During the operation there was not the slightest indication of pain. My patient recovered rapidly without a bad symptom—the wound healing kindly; and since the operation, (20th August, 1847,) she has had no pain in the breast—a longer exemption than she has enjoyed since the appearance of the tumor.

On the 16th day of December, 1847, I amputated the right leg of Mr. M., æt 54, after treating it several months, for a disease of the ankle joint—Synovial degeneration with caries of the astragalus and tibia. As is my custom, I had given him the ether a few days before, to ascertain the degree of susceptibility of his system to its influence, and to familiarize him to its administration, and found it to do well. On the day above mentioned, I proceeded in the presence of several Physicians to etherize M. and perform the operation. Perfect etherization was readily induced—the patient taking the vapor from a tin vessel about the size of a diploma-case, with a spout projecting a few inches from the top, and flattened at the end to be easily received into the mouth. During the operation, which occupied about two minutes, not a muscle was moved, the patient being entirely insensible and unconscious of what was going on; when the influence of the vapor passed off, he was perfectly tranquil, and expressed his surprise that he had suffered no pain. This patient had the speediest, and most happy recovery from an amputation I have

ever known. There was not the slightest fever, pain, increase of temperature in the limb, undue inflammation in the stump, or any disagreeable complication whatever. His health, which had become greatly impaired, began to improve from the day of the operation, and four weeks afterwards he was going about on a wooden leg, attending to the duties of his farm.

Since that time, (16th Dec.) I have performed a number of minor operations under the influence of ether, and with the same success; and I am most firmly convinced of its safety and efficiency as an anæsthetic agent in all cases.

It will be observed that necessity caused me to resort to the ether, in the first case detailed. This was the first person I ever saw under its influence; I used the common sulphuric ether of the shops, and succeeded fully, notwithstanding that my inexperience and other circumstances were against me. The only increased facility I have enjoyed in subsequent operations, has been the use of the instrument mentioned above, which renders the exhibition of the vapor much more convenient: sometimes, however, my patients become a little intractable—refuse to inhale from it, and I am compelled to resort to my first expedient; in this way I can coerce the inhalation until the influence is fully induced. In no case have I been unsuccessful in its use, except in a single instance in which I applied it in obedience to the patient's importunity, and against my own judgment. This person had taken, an hour or two before, a free draught of spirits, and when he had inhaled the ether a short time, became excited and unmanageable. A few hours after, he took the vapor, and was operated upon without suffering any pain.

Is it then, true, as the experience of some seems to establish, that this article is adapted to only a certain class of cases? and that particular temperaments and conditions are alone susceptible to its favorable influence? Unhesitatingly, I would answer this question in the negative, and adduce an experience, varied, and somewhat extensive for a private practitioner, in defence of the position. I am persuaded, and feel anxious to attract the attention of the profession to the fact, that eve-

ry case of partial or complete failure in any temperament or condition, is entirely attributable to the timidity of the operator or the patient. The majority of practitioners proceed to its exhibition, lacking full confidence in its powers, or having undue fears of its deleterious effects, and become easily discouraged. Patients take it with an excited imagination—mingled diffidence and fear; the excitement incident to the first stage of etherization is induced—they become a little unmanageable, and the attempt is abandoned.

When this state of things occurs in my practice, I usually lay aside the inhaling apparatus, as above remarked, and resort to the plan adopted in the first case. A moment's perseverance only is required to insure tranquillity, and complete etherization, and no bad effect has ever followed its administration in this way, to any of my patients. They universally express a feeling of comfort and ease ten minutes after the effect passes off, being exempt even, to a great extent, from that burning pain in the wound, always complained of after operations performed without the ether. I have not noticed that the action of the heart is materially affected during the influence, or that the functions of the respiratory organs suffer any derangement.

My experience, then, justifies the following deductions:

1st. Operations performed upon persons under the complete influence of the ether, do not cause the shock to the nervous system and depression of its energies, which necessarily follow operations performed under other circumstances.

2d. This shock and depression of the nervous system being averted, the consequent and corresponding reaction and excitement do not occur, and fever, inflammation, and their concomitant evils are not to be feared.

3d. The careful and cautious administration of ether is not attended or followed by any bad effects; and patients subjected to its influence during capital and other operations, *cæteris paribus*, enjoy greatly increased chances of recovery.

4th. It is applicable to every variety of cases, except perhaps where there is organic lesion of the cerebral tissues. In these cases I have had no experience.

These conclusions may have been established by other practitioners; if so, I am not aware of it. Living remote from the best sources of information I am not as enlightened upon this subject as thousands of my professional bretheren; but almost every article I have read relating to this agent, expresses doubts as to its general application and complete efficacy. It is against this sentiment that I desire to raise my voice; and feeling, as far as my experience justifies me in doing, the utmost confidence in, and the profoundest admiration of, this splendid discovery, I shall express the hope that the time is not far distant, when the force of truth in its favor, like the waters of the celebrated river of Tartarus whose name it bears, shall obliviate all prejudice and opposition to a discovery, so highly calculated to alleviate human suffering.

February 6, 1848.

ART. V.—*A Case of Convulsions terminating fatally, caused by Ascaris Lumbricoides; Appearances Post Mortem.* By WILLIAM T. WINSOR, M.D., of Lexington, Missouri.

A negro girl, aged four years, was taken with convulsions, which lasted some minutes, and were followed by stupor and insensibility. The symptoms on visiting the patient were as follows: Pulse extremely vacillating, at times small, frequent and feeble, and again full and slow, but always compressible; skin a little above the natural temperature and dry; breathing rapid and laborious; eyes tightly closed, and condition of the pupils not determined. The child had been previously healthy, and immediately before the attack manifested no signs of indisposition except complaining of pain in the head; but for a month previously she had manifested a propensity to eat dirt, which nothing had been found to correct.

Conceiving the nervous or cerebral irritation to be purely sympathetic, and that the primary local irritation was in the alimentary canal, and probably caused by the presence of lumbrici, it was thought proper to administer castor oil and spirits of turpentine freely, and to use frictions with the latter

over the epigastric and umbilical regions; a blister plaster was also applied to the back of the neck, and laxative enemata employed. This practice was continued for several hours without any effect upon the bowels or amendment in the symptoms, when venesection, calomel and some of the more drastic purgatives were resorted to; but all proved ineffectual. The convulsions returned at intervals, alternating with a lethargic condition from which she could not easily be roused. She died in thirty hours from the commencement of the convulsions. Permission being given to make a *post mortem* examination, the following apperances were presented by the *sectio cadaveris*, twenty-four hours after death:

Brain.—No evidence of inflammation in the meninges. Serous effusion on the arachnoid; great vascular turgescence of the entire cerebral mass; sinuses full—the great longitudinal and lateral ones distended as if by injection; traces of pus between the convolutions and accompanying the ramifications of the vessels on the surface of the brain and between the arachnoid and pia mater. Consistence of the nervous mass less than natural, amounting to incipient softening.

Abdomen.—The intestinal tube contained little else than lumbrici throughout its entire extent, except the colon. *Seven distinct invaginations* were discovered in the small intestines. The first was twelve inches below the duodenum, the last was within six inches of the cœcum. The intussusceptions were all *progressive*, and the invaginated portion of some exceeded two inches in length. No symptoms of inflammation were present in the bowel or its mucous lining, nor even hyperæmia. In fact, it was exsanguine, and distended with flatus; and between each invagination, knots of worms could be felt, and even seen through the expanded and translucent portions when held up to the light. A large worm had found its way into the appendix vermiformis, but beyond this none were found. Mesenteric glands enlarged; gall-bladder full of vitiated bile; no obstruction in the gall-duct; liver of a healthy color, but extremely tough, and could not be broken down by the thumb and finger.—No examination of the thorax.

January, 1848.

REVIEWS.

ART. V.—*Females and their Diseases; a Series of Letters to his Class.* By CHARLES D. MEIGS, M.D., Professor of Midwifery and the Diseases of Women and Children in the Jefferson Medical College at Philadelphia; Member of the American Medical Association; of the American Philosophical Society, and one of the Council; Fellow of the College of Physicians of Philadelphia; one of the Physicians to the Lying-in Department of the Pennsylvania Hospital, etc. Philadelphia: Lea and Blanchard. 8vo. pp. 670. 1848.

The first thing that will strike the reader of these letters is the free, off-hand, colloquial style in which they are written; and whether this will be felt to be a merit or a fault, will depend upon original taste, or the bias of education. The author himself had his doubts "whether such a mode of writing would prove agreeable to the brethren, so as to meet their approbation;" but he has ventured boldly upon the experiment, and if he has failed in it, he is not without hope that some one else may be more fortunate in finding a method by which we shall "get rid of our medical dullness." The style is certainly not faultless, but yet it is one which, we venture to believe, will prove acceptable to most of the readers to whom it is especially addressed. It is fresh, buoyant, varied and sprightly, and one is carried along by it without weariness, as by a lively conversation, which we deem to be no trifling merit in a work relating to such subjects. If the author had confined himself to our own copious language, of which he is so much the master, his brethren, we are disposed to think, would have been still better pleased with his style. Most of them will com-

plain of his use of French words where English might have been better used, and some will object to his frequent quotations from the Latin poets. Since it was the design of the author to address the former members of his class in "the most familiar style," we wish he had confined himself to the use of the language with which alone they can claim to be familiar.

"As to the doctrine and the precept of these letters," we think with the author, that "he has a right, at his stage of life, to be heard upon them," and we are quite sure that he will be heard with great advantage. Whatever differences of opinion there may be respecting the manner of the letters, there can be no diversity as to the matter. They are full of instruction. It would be difficult to point to a volume containing more valuable information relative to females and their diseases. We shall attempt to make this appear by extracts from the work, and our first quotation is the entire letter on *Sex*. In this letter the reader will see the work of Professor Meigs. The volume contains no more characteristic letter than this, and few, perhaps, more interesting.

"You may remember that in lectures at the college I very frequently repeated that the ovary of the female gives to her the sexual character, and that as the interior and active tissue of the ovary is the part which Ch. Ernest von Baer calls the lager or stroma, so that very lager or stroma is the *sex* itself.

You might, perhaps, at first hearing this dogma, feel disposed to reject it as too concise an expression of the multitudinous and diversified characteristics of the sexual nature; but I hope a careful examination of the matter may induce you to coincide with me in opinion.

The sexual office is designed to reproduce the material forms and faculties of a genus or species; and this is not done save by the production of a germ, which, at least in all the zoological series, is found within an ovum, which in plain Englisn is an egg. *Omne vivum ex ovo* is a true saying.

An ovum, then, is an egg, which is not to be considered as a germ, but as a thing containing a germ and the material or pabulum for the early stages of the development of that germ.

An egg is a yelk-ball, which in some instances is invested with a quantity of albumen or white, and in some cases is not accompanied with any deposit of that sort.

The yelk-ball is a vitellus, and consists of a multitude of corpuscles and granules, and punctiform bodies and small globules of oil swimming in a clear, delicate fluid, inclosed by a delicate anhistous membrane, the vitellary membrane. In most cases, yelk is of a yellow hue, in some it is red or greenish, etc.

If you break open a yelk, whether of the humming-bird or the ostrich, of the elephant or the mare, the rabbit or the earthworm, the shad, the minnow, or the whale, you will find it to consist of corpuscles, granules and puncta, with oil globules and the clear fluid.

If the egg has not been subjected to fecundation, as it cannot be within the ovary, there will be found within it, at the center of the ball or near the surface of the vitellary membrane, a smaller spherule of a beautiful transparency, and which is denominated the germinal vesicle—within which, adhering to the wall of the vesicle, are a number of very minute microscopic granules, which by Rudolph Wagner, of Berlin, by whom they were discovered, are called the macula germinativa or germinal spot—so that an egg is, 1, a vitellus; 2, a germinal vesicle contained within a vitellus; 3, a germinal spot lodged upon the inner wall of the germinal vesicle.

Is it not to be believed that the germinal spot is the true germ-point or germ itself, and that all the other constituents of the ovum are placed round about it in order that by its changing and formative power, its metabolic and plastic force, it may convert their elements into its own corporeal elements, evolving by their consumption the rudiments of its own organs, as brain, veins, heart, blood, etc. etc., until, having acquired sufficient organic form and force to make its mesenteric attachment to the living parts of the womb, it is ready to be conceived—conception being the formation of that mesenteric attachment, and nothing more nor nothing less?

Nature—all whose operations are preordained as being guided and limited by the law of God—has provided fully and most liberally for the production of germs, and thereby secured the perpetuity of her kinds. She has, in order for this germ production, adopted various methods of arrangement. In certain animals she has devolved the germ-producing and the fecundating powers upon the same creature; in others she has provided two independent forms of being for the carrying on of the office.

In the lower orders of beings, as the earthworm, for example, both the germiferous and the fecundative attributes are comprised within the same individual body; so that the creature can fecundate its own female constitution by the act of its male constitution. And this simple but effectual mode of keeping up the genus or species is admirably adapted to the inactive and aperceptive nature of the being itself.

In the higher forms, two separate individuals are provided, one with the male or fecundating nature, and the other with the female or germinating nature. "Male and female created he them," unto the end that they might increase and multiply, and fill the earth with sentient beings wonderfully endowed with life-faculties, and therefore with the means of enjoyment, in other words, of happiness. To procure happiness and establish it must be regarded as one of the highest attributes of Divine power and beneficence.

The important, the indispensable ovum could not be left without protection; it could not be developed without a machinery.

The ovum is therefore protected with an ovisac or capsule, which is what is called a Graafian vesicle, or Graafian follicle, or Graafian cell, from Regnier de Graaf, a Dutch physician, who—in his 'Treatise de Mulierum Organis Generationi Inservientibus,' published in 1672—gave the first clear account of those small pellucid vesicles that you have so often seen in the ovaries I exhibited to you.

A Graafian vesicle consists of a double-coated capsule, of which the outer one lies in contact with the stroma, and contains the inner one within its own sphere—not loose and unattached, but connected to it by means probably of a very delicate laminated cellular tela.

This interposed and connecting cellular tela may become filled with secretions; and as the outer one is, like a mineral in its gangue, pressed against the stroma, it is clear that any interstitial deposit must have two contrary results, one to enlarge the outer concentric and throw it back against the stroma, displacing and distending it, and the other to press the ovisac inwards towards its contents, to compress them, and to render the inner aspect of the ovisac uneven, wrinkled, or convoluted; and, in fact, I have shown you on several occasions both these different results.

I pray you to call to mind not only the human ovaries in which I showed you the convoluted or wrinkled appearance of the inner aspect of the ovisac, but the more striking samples of the same effect in the ovary of the cow. In this latter case

the interstitial deposit was so enormous that the outer coat of the ovisac had grown to a size nearly equal to half the mass of the whole ovary, and was of an orange hue, derived from the deposit of a vast quantity of vitellary matter betwixt the two laminæ; the outer one being greatly expanded or extended, and the inner one being crumpled, convoluted or wrinkled. This great orange colored mass was the corpus luteum.

Before the corpus luteum had begun to form, the ovary had been occupied in furnishing vitellary matter for the constitution of the yelk-ball; but that ball having become complete in all its parts, and incapable of any further accretion as contrary to its generic law, the ovarian stroma, whose office it is to produce germs and vitellus, could not at once withhold its vitelliferous power, and the deposit went on upon the outside of the ovisac.

Hence you perceive that in a perfectly mature Graafian follicle there is a yelk-ball with its germinal vesicle and germinal spot inside of it; some fluid of the ovisac filled with granules; while on the outer surface of the ovisac, between it and the external capsule or coat, is a yellow deposit, which begins to appear there about the time when the yelk is quite ripe, and continues to augment in quantity for some time after the yelk has been discharged. Let me repeat, that this yellow body is the famous corpus luteum, and that such a yellow mass is deposited with the maturation and discharge of every yelk. Sometimes, perhaps, in pregnancy, the corpus luteum is larger than at other times, but whether large or small, it is a real corpus luteum; for there are not, as some writers pretend, true and false, but only true corpora lutea.

But this gradual evolution of the luteal deposit has the effect of lifting the germ, with its vesicle and its yelk-ball, nearer and nearer to the superficies of the stroma, to press outwards the tunica albuginea, and finally to press it so forcibly that absorption commences at the weakest and most distended point of its surface, until, a pore being formed, the yelk and the fluid about it escape from their imprisonment in the ovary, and fall into the belly, or are received within the infundibular orifice of the oviduct, which you call the Fallopian tube, and thence conveyed to the womb. Its mesenteric attachment to the womb, as I before said, constitutes a conception, which pregnancy follows.

I have made the foregoing observations in order to fortify my assertion, that for the female, stroma is sex.

Do you think that if a creature should be born with the external genitalia perfectly well formed, with a perfect uterus,

and vagina, and tubes, but without the trace of any ovarium; such a creature could be a female? Or if she should have two perfect ovaria, and be born without womb, or vagina, or external organs, would she be anything else than a female? I am sure you will agree with me, that she would not, in the former case, be female, and that in the latter she would be truly female—because, though unhappily deprived of any gestative organ or organ of copulation, she is endowed with the germiferous through her vitelliferous faculty, which resides essentially and exclusively in the substance called stroma. No germ could she evolve in the spleen or liver, in the kidney or brain, in the heart or lungs, nor, indeed, anywhere save in the stroma, which is the true sexual concrete, and is therefore itself sex; for liver, heart, brain, lung nor digestive canal is not sex, but stroma is sex for the female—nothing else is sex.

But, after all, what is sex? Methinks you ask the question, which is a very difficult one. Perhaps I should best answer it in a few words, by saying it is reproductive power, whether male power or female power. It is a matter of indifference whether the philolologists derive the word from *secus*, *aliter*, otherwise, after another manner, or from *secare*, to cut, to divide one from another. We have in physic less to do with philology than with facts. I consider that we are hitherto unacquainted with any facts that give convincing proof of a sexual nature in the germ.

There is an embryonal stage of life in which it is utterly impossible to determine the sex of the embryo; and it is not known whether the female embryo proceeds from a germ originally female, or whether the germ, being in its inchoate state neither male nor female, assumes the female nature in the progress of its evolution, or takes on the nature of the male under some law as yet unknown to us.

It is very certain, however, that for the human race the proportion of the sexes, as to their number on the globe, is maintained from age to age. The law that ordains this equable rate of production operates so as to bring into the world about 104 males to 100 females, a proportion which keeps the sexes nearly equal in number, it being supposed that the temperament and exposure of the male render him more liable to premature death than the female, on which account the excess of males is ordained.

If we refer to what is known to occur as to the nonsexual nature of the larva of the bee, hereafter to be mentioned, we may find arguments for the opinion that the germ originally is

nonsexual, but becomes male or female under some unknown law of development in its earliest embryonal life.

If such a sentiment may be rightfully entertained, you will, perhaps agree with me, that the sex is something superimposed upon the mere living nature of a creature; and you will more readily admit of it if you contemplate two children, one male and the other female, of the same stature, weight and temperament, born at the same hour, and brought up at the same breast. You cannot report to the mother of what sex they be, without referring to the pelvic extremity of the trunk. They are pleased with the same rattle, tickled with the same straw; they play at the same toys, and are alike in moral and physical attributes until the sexual endowment comes to be granted to them. Upon that instant they divaricate; their whole physical and intellectual and moral forces become different, and they pursue, so to speak, a separate walk of life, until the exhaustion of the sexual attribute in the one and in the other causes their paths to converge again, until they are seen sleeping "*thegither at the foot*" of the hill of life, over which they had toiled in distinct tracks from the puberic until the critical age. What can be more like an old woman than an old man? or what can be more like a girl than a perfectly ingenuous boy? Where is the likeness of men and women?

Is it not true, then, that the sexual nature is something superadded to the mere living corporeal nature, which, on being taken away, reduces them back again to their original sameness of life-nature?

You have heard, I presume, of a circumstance that may tend to illustrate this view, in the history of the honey-bee. The community requires a queen—which means a vitelliferous and so a germiferous creature—and it also requires a considerable number of drones, males, or fecundating members of the society; which being provided for the hive in queston, nothing more is wanting but a sufficient number of mules, or working bees, or creatures capable, first, of enjoymet, and, second, able to provide for the conservation of the species by collecting food—1, for the germiferous; 2, for the fecundating, and, 3, for the providing part of the species. Now, all these males and workers are alike in the ovular state; but if the males die by some epidemic, a battle or accident, the community know how to convert the larvæ into males by administering to them certain sorts of food, or to leave them mere workers by withholding that kind of aliment. So that in fact you discover here that the mere corporeal life of the larva possess-

es no sexual nature, and that a sexual nature may be superadded by a certain economy of the hive—an economy that can cause the ovum so to develop itself as to become fitly provided with the fecundating apparatus and material, or to become a queen bee or germiferous bee; for when a queen dies, after having deposited many thousand eggs in the mule bee cell, the alarm and confusion in the hive are very extraordinary, but it subsides after the tumult of the first excitement, and the mules or workers select some one egg, for which they enlarge the cell by converting three common ones into a single royal cell; and then, by feeding the grub with an aliment called royal jelly, they cause it to pass into the female state; and thus the lost queen is succeeded by a queen produced from the egg of a mule or worker bee—an egg that could only have developed a nonsexual creature but for the special influences brought to bear upon it from a state of necessity. I ask you again, if this be true, whether it does not show that the sexual nature is not an original nature, but a nature superimposed upon a mere animal or living nature? And if true of the bee, does not that truth established likewise establish the law for all possible animal and even vegetable existences?

I see not how a better proof, or, at least, illustration, could be given of my idea, that the sexual nature is a climax; it is a culminating life-force that evolves it.

It ought not to excite our astonishment that the female sexual nature gives to her physical, intellectual and moral attributes a bias different from that of the male.

Her organs are different; they are subject to fluctuations as to the tide of life within them that those of the male are by no means exposed to. They require a different and more complex system of innervation, more expensive to the nerve centers than those of the male, more delicate, sensitive, impressible than his. These are circumstances implying a dependence and physical debility as compared with him—a reliance and trusting to his power—and, in fact, all the peculiarities that mark her as a creature of the feminine and gentle sex."

If it were our object merely to give an idea of the manner in which this work on a most interesting and important subject has been executed, we might close our notice with the foregoing extract. But such is not the fact. It embraces too much matter of moment to the practitioner, and too many

physiological views of which no physician should be ignorant, to be dismissed with so slight a notice.

Having shown what, in the author's view, constitutes sex—a view in which, we suppose, all will concur—we pass over many intermediate letters, and proceed to notice some topics akin to this, discussed under the head of "*Menstrua*," For long centuries it was a matter of inquiry among the learned, what is the cause of menstruation in women, and the question has only just received a satisfactory answer. It is given in the following words:

"A healthy woman matures and deposits an ovum every twenty-eighth day, from the age of fifteen to that of forty-five years, failing only in case of pregnancy and lactation, and sometimes not even then. She sometimes suffers an arrest of the force during lactation, yet in the majority even that arrest is but of short duration, and in many it does not take place at all. The closing stage of the process of maturing and depositing or discharging the ovum is attended with a discharge of bloody fluid from the genitalia, which is called menstruation, because it takes place once a month."

As each blade of corn came from a grain and each oak from an acorn, so every animal, small as well as great, existed once as a germ. "The egg of the barndoor fowl is not more perfectly an egg than is the microscopic egglet you find in the Graafian follicle of a cow, a mare, a sheep, a dog, or a whale. Each egg contains not only its germ, but its yelk." Such is the received doctrine on this subject.

The germ is produced by the ovaria, behind the peritoneal coat, in the Graafian cells, matures, is discharged at the menstrual period, and, if not fecundated by the male, escapes and is lost. Our author remarks:

"At different times I have exhibited to you, and great numbers of the class have come down into the rotunda to look at it, the yelk taken from the ovary of the cow as well as that from the ewe. You remember that the ovarian vesicle was punctured with a lancet, and the drop of liquid which spirted from the incision being collected on a lamina of glass and

placed under the microscope, the yelk containing its germinal vesicle and macula was shown you in one of Chevalier's microscopes. This yelk-ball was contained within Graaf's vesicle. Graaf's vesicle has two coats, an inner one, and an outer one which contains the inner one, sphere within sphere; but the spheres are buried beneath the fibrous coat or albuginea of the ovary. The albuginea is contained beneath the indusium or the peritoneal coat.

"This statement, taken in connection with the fact that the ova of birds, and fishes, and frogs, etc. are discharged without the intervention of the male or any antecedent sexual conflict, ought to convince any one that the fecundation of the ova does not take place within, but outside of the ovaria, and therefore the ova must escape from the ovaria previous to the impregnating act. In other words, there is a physiological function of the ovary to mature and discharge its ova, in order that they may be afterwards haply fecundated. If you admit that this statement is a correct one, then you accept the doctrine of the spontaneous expulsion of ova, or the *ovi-posit.* Admitting the ovi-posit as a law of the reproductive force, then the question arises again, is this an irregular or a regular and periodical function? I have shown that throughout all living nature it is periodical, not continual, not irregular, not accidental. I see no bar to the conclusion that it is so in women.

"M. Negrier, of Angers, M. Gendrin, Dr. Robert Lee, M. Bischoff, and, more than everybody else, Dr. Pouchet, of Rouen, have taken pains to observe the state of the ovaria in women who have died during or soon after the act of menstruation. They have all found that at that crisis the ovary exhibits a mark on its surface, a bloody spot, a hole, a pore—into which can be pressed the point of a probe. This hole, this pore leads to an expanded crypt filled with a minute clot of blood. If the ovary be split with a scalpel, conducting the incision so as to cut through the pore, it will be found to lay open a Graafian follicle, from which the egg has escaped through its pore-like hila, as happens in the ovary of the bird. These appearances are seen whenever an ovary is examined during or shortly after a menstruation. You may remember that I showed you such a one in the ovary of a young woman who died shortly after her menstrua, and, what is more, I showed you the trace or cicatrix of the menses that preceded the last one, and I laid it open and showed you its crypt not yet closed up within, though healed on the surface; and a specimen is now in the museum, which contains the uterus of a

young person who died suddenly while the menstrua were present: the uterus still contained the fluid, and the pore was bloody. My own opinion is, that you will never examine the internal genitalia under such circumstances without finding the fresh spot, and that you will not find it under any other circumstances. All this has been so clearly made out by M. Negrier, and particularly by M. Pouchet, that it is a loss of time to talk about it by way of proof or corroboration; and I really suppose that he who does not see and admit the doctrine of a spontaneous ovi-posit coincident with menstruation, must close his eyes to the light, and deny the most irrefragable demonstration."

This being settled, there is no difficulty in accounting for the menstrual engorgement of the reproductive organs. Pouchet found that the sow, during menstruation, exhibits in the vagina a rose tint, and that the womb was highly red and injected. This condition of the uterus in the human female is relieved by the catamenial hemorrhage.

"I conceive that enough has been said to convince you that the ovulation and spontaneous deposit of ova is completely independent of the sexual congress; and you ought to add, completely independent of and disconnected with any sexual sense or sentiment in the human being, though it is far otherwise in the lower mammals, etc. The reason of this difference is to be found in the high morals of reasoning creatures, as distinct from those beings that are governed by instinctive sense, and not by reason.

"If you accept the doctrine of the spontaneous periodical deposition of ova, then I think you have little difficulty to account for the mensual engorgement of the reproductive organs, or the monthly local plethora, or turgescence, or hyperæmia, which is relieved so regularly and completely by the catamenial or menstrual hemorrhage.

"The evolution of a Graafian cell is more and more rapidly effected, as it approaches nearer and nearer to its completion. The largest and most mature follicle is now enveloped, so to speak, in a mass of injected and engorged and hyperæmic tissues redolent with life; it is surrounded with *red vessels* carrying on in it the development offices. The cell, like a growing tooth, is magnified and raised up so rapidly, that, like the gum over the tooth, the stroma around the cell becomes turgid, succulent, almost inflamed, we might say. Under such

circnmstances, what wonder have you to find the whole ovary swollen and turgid, or the womb itself affected in the same way? What wonder to find the woman complaining of pain in the ovaric region and in the womb, with aching, with heat, with sense of weight and dragging in the pelvis; and to find, on examination, that the uterus is larger, heavier, and more colored than in the intermenstrual periods?

"In fact, the womb, previous to the disengorging outflow of the menstrual blood, is redder and heavier and more succulent than when it has been fully acquitted by the discharge."

The author advances a step further on this curious subject, and presents a theory, not yet admitted, of the manner in which the corpus luteum is developed. He says:

"The function of stroma is to produce germs and vitellus. When the production of the germ on the inner face of the vesicle buried within the vitellus is complete, the ovulum is ripe; it has attained its generical magnitude and weight; but the stroma continues to supply the vitellary matter; it deposits it betwixt the two concentric spherules of the follicle. The inner spherule yields to the pressure of the increasing mass, and becomes convoluted as it is crushed inwards towards the yelk-ball. The outer spherule is driven outwards against the gangue of the ovarian stroma, and the deposit goes on, particularly in the cow and the swine, to a vast extent, making, in some instances, a mass of corpus luteum equal to half the volume of the ovary.

"At the same time the inner concentric, growing smaller and smaller from the pressure towards its center, lifts the yelk ball to the albuginea and indusium, where the resistance is weakest. The cavity of the follicle becomes reduced nearly to nothing as the pressure augments, until at last, the porule being established by the absorbents or by rupture, the yelk-ball escapes, along with its granular membrane, in fragments, leaving a crypt, which becomes filled with coagulated blood, the crypt being contained within a yellow mass of vitellus called the corpus luteum, which, at some stage as yet unascertained, begins to be absorbed as the vitelliferous forces of the stroma become determined towards the development of another follicle. It would be unreasonable to suppose that upon the escape of the ovulum, the yelk-producing force and activity should be immediately suspended. It is even probable that

the corpus luteum may continue to augment for a certain but unknown short period."

It results, therefore, according to this view, that the act of menstruation "consists in the periodical maturation and deposit of an ovulum," of which the discharge is but the outward sign. Hence a woman may menstruate regularly, without any hemorrhagic sign of menstruation. Our author remarks:

"Doubtless many women are perfectly regular who give no outward sign of it. Do you doubt the truth of this proposition? If you do, then I ask you if it be not proved by the fact that a great many women who give suck do not have their courses until they wean the child? It is true that a great many women during their lactation find themselves to become regularly unwell from the seventh month; and it is also usual to observe that a woman lying-in has a return of the courses six weeks after the birth of the child. This is so generally the case that I always expect my patient to be unwell again at the sixth week, and to be regularly menstruous from the seventh month. This is the rule; the exceptions are in those women who never *see* until they wean the child, of which class the number is large."

On the same point he has the following instructive observations:

"You ought further to learn, that some women do not *see* from the time of their first conception until they have borne a considerable number of children, because, becoming fecundated while they are nursing, they carry out the pregnancy to term, become again enceinte, and so on, never seeing their courses, as I said, until, being no longer impregnated, the ovulation is marked by a natural return of the mensual hemorrhage. I have met with several samples of this kind, and they are so abundantly recorded in our books that there is no need to cite the cases; you may set it down as a fact that it is so with not a few women. How could it be otherwise with those women who have a child every year or eleven months? I have seen a child born at ten months after its antecedent.

"Now, supposing the ovulation and spontaneous deposit of the ovule to be the true doctrine, do you not see that these

suckling women in question did really produce ovules for fecundation, though they did not have the menstrual discharge? I deem it no matter of surprise that they had not the menstrual discharge, because I can perceive in the function of lactation, an action derivative from the internal genitalia to the mammary glands, of strength sufficient to turn aside the determinations, whether sanguine or nervous, of the constitution from the genitalia to the lactiferous apparatus. Many other things turn it aside in the same way. There are many women who may be presumed to have the inward menstruation, videlicet, the ovulation, without any bleeding—a case that may take place without the least shock to the woman's health. A young woman, for example, may have reached the proper age for menstruation without having seen the sign or show. She may be married, conceive, and bear a child, suckle it, and at the end of seven months have her first menstruation. This has been observed to happen more than once. Who can doubt that she matured and deposited her germs, which were fecundated after her marriage? Or will you go back to the idols, and embrace the old doctrine that the germs were fecundated in the ovaria? If you will go back to such idols, I have nothing to do but 'let you alone.'

"You might well suppose that pregnancy will put a stop to the ovulation; and perhaps in a majority of cases it is true that when the womb has once fairly begun its career of gravid development, the sanguine and nervous forces of the reproductive organs are so completely absorbed in the business of gestation, that the ovarian function is suspended, or proceeds but slowly and feebly at most. Yet there are pregnant women not a few who have regular mensual returns for three or even four months. I had a patient here who was regularly unwell up to the eighth month, when I attended her. She went out her time, and was laid at the ninth month.

"Moreover, some women have the most insuperable tendency to miscarry, and those miscarriages are found to take place at the period of their usual menstruation; in fact, the major part of the abortions and threats of abortion you are hereafter to meet with coincide with the woman's catamenial period—a fact very important for you to know, because you ought to take measures to obviate the danger at the time, and, when the time is passed, relieve the patient from the onus of an unnecessary treatment.

"All the foregoing may suffice to show you that you are not to take in hand every female who does not have the show just at the time it is expected, and that you will be at liberty

to suppose that her constitution does not suffer the least injury; because, while she does not seem to be regular, she is in fact perfectly regular—that is to say, she regularly matures and deposits her germs, for that is the physiological act of menstruation, and nothing else is. This is what her constitution requires her to do. If she bleeds, it is well; but she is often found to be well even if she does not bleed a drop. Is it not so with the suckling woman? I am glad to have an opportunity to tell you these things, for I hope they may have the effect to make you keep clear sometimes of the drugging process which is too apt to be set on foot the moment a lady complains of amenorrhœa.

"In a former letter I said I had often seen young women lose their courses when brought to town and set on the school form, yet retaining all the outward appearances of valid health. Whenever I have been consulted as to such a one, I have made a very careful exploration of the rate and degree of the various functions; and when I have found that the intellection, the respiration, circulation, innervation, calorification, digestion, secretions, etc. are all normal, and that nothing is wanting save the menstruous show, I have let the patient alone, merely directing a close surveillance of her health, and proposing to interfere only in case some further signs of disorder should present themselves. The deviation in such cases I have attributed to the consumption of the nerve force, the *neurosity*, by the hemispheres, in the too constant operation of the powers of the intelligence. A holiday or a return to their homes cures them better than drugs. Do not, I pray, let me mislead you here. On the contrary, I repeat that the state of the whole constitution should be carefully explored, and when therapeutical treatment is evidently demanded, see to it that the true indications be fulfilled."

The ovum is matured and discharged quite independently of sexual congress. When it has been fecundated by the contact with the male sexual element, it begins to be developed, provided that a connection is established between it and the living surface of the mother. It is not until this "mesenteric attachment" takes place that the woman can be said to have conceived.

"Doubtless thousands and millions of germs become fecundated, but which never form mesenteric attachments, and are

consequently lost; the womb is only pregnant when the mesenteric attachment is made. No matter where this mesenteric attachment is, the woman is pregnant when it is made. It may be effected in some part of the tractus of the Fallopian tube, or it may be made upon the surface of the ovary, the ovary being covered at the time by the fimbria of the tube. If the porule of the Graafian cell have been formed, and the male sexual element have been translated through the channel of the tube, and come in contact with the exposed ovule, still contained within the Graafian crypt, the ovule may be there fecundated, and may form its mesenteric attachment within the crypt, and then you will have an ovarian pregnancy, and there is not another way in which you can have one. It is probable that the germ may be fecundated within the grasp of the fimbria, and being thus endowed with the development power, it may fall into the peritoneal sack, and there form its mesenteric attachment, thus constituting a ventral pregnancy. An ovule, on its passage from the fimbria to the uterus, may become fecundated; it may be arrested in the narrowest part of the tube where it passes through the thickness of the uterus; the delay and the pressure are probably the causes why it sometimes forms its mesenteric attachment there, and develops itself in the substance of the uterus outside of its cavity, thus constituting what is called interstitial pregnancy.

"Conception is never natural, never right, never safe, except when it takes place in the cavity of the womb. Please not understand me as stating that fecundation always takes place out of the uterine cavity; it is probable that it most frequently takes place outside of the cavity, but it may take place within the cavity of the womb. The fecundation takes place in whatever place the contact of the sexual element happens to be made."

It is, therefore, only when the germ is exposed in the Graafian cell, or in its descent towards the vagina, that conception can take place. But it is a question not yet determined, how long the germ may be retained with susceptibility to fecundation. Dewees reports the case of a woman whose pregnancy, there was good reason to believe, dated three weeks after the disappearance of her menses. Physiologists generally hold that the germ remains susceptible for eight days, and the truth of the opinion is established by a single historical fact alluded to by our author, that "the Jewish women do not return to the

husband's bed until eight days after the disparition, and yet they conceive and bear children." Prof. Meigs believes that the ovulum may preserve its vitality as late as the twelfth or thirteenth day, but that fecundation is most apt to take place the first day after the disappearance of the menses, and that the chances diminish every day thereafter. But we will leave these questions for others of a more practical character.

The method adopted by Prof. Meigs is to describe the various organs peculiar to the female, and in connection with them the diseases to which they are liable. His remarks upon most of these are brief—so brief, indeed, that the reader will not always find as full information as he may desire; but they embrace the leading points on the various topics, and his directions are laid down in terms likely to be remembered. It is a task in which we should be glad to engage, if our limits would permit, to follow him through his lively letters, and give a synopsis of the matter of each one; but as it is, we can only select here and there a few passages, referring the reader for more ample information to the work itself.

We suppose that displacements of the uterus are among the most frequent of female disorders, inflicting serious and lasting trouble upon their subjects. Concerning the most common of these our author has the following remarks:

"But how is a man to know that the womb is prolapsed, taking his information solely from the statements of the patient? He cannot discriminate between the many causes of the very same painful sensation—that painful sensation being the expression of distress arising from a great variety of states of the parts in the pelvis. The only way to ascertain very clearly what is the fault, is to examine by the touch, and even that is insufficient in a great many of the cases of complaint; I say insufficient, not to detect a prolapsion, but to disclose the whole nature of the malady.

"There is but one course to take when the patient declines to have her serious case inquired into, and that is to argue the point with her so as to convince her judgement and obtain her consent, or to decline assuming the responsibility of curing her altogether. It is surely better to have nothing to do with the conduct of a case of disease in which the absolutely need-

ful information is withheld. A physician who acts without knowing why, is more mischievous often than a disease left to its own native tendencies. Now, to continue in the care of a case you cannot cure because you do not understand it, is no profit nor honor—the greatest profit being always attendant on him who makes the best and promptest cures, and the greatest honor too."

The author has undoubting faith in the efficacy of pessaries in this complaint. He says:

"The comfort derivable from this method of support is scarcely describable. A woman who for months had been unable to walk or even to stand without an ineffable sense of weakness and pain, moves freely and spontaneously after the adjustment, and, in short, is as greatly relieved as is the man who has his humerus reposited after a dislocation. To show you how great that relief is, let me tell you that I was called to a very pious citizen, who dislocated his humerus into the axilla, and who, when I arrived, was holding the right arm in an elevated position by means of the left hand, with which he supported it, as the least descent of the elbow gave him exquisite pain. I took hold of the limb, made the extension in the proper direction, and then, depressing the elbow, reposited the head of the bone in the glenoid cavity. As the orbicular head took its place, he ejaculated with the utmost unction, 'Bless the Lord, oh my soul! and all that is within me, bless and magnify his holy name!" He had occasion to ejaculate his thankfulness, for he passed from agony into perfect calm. It is true, I have never heard a female make such an ejaculation upon a repositio uteri, but I doubt not the relief has many times been almost as great in the one case as in the other."

Not a few practitioners entertain doubts respecting the efficacy of these instruments. Dr. Meigs holds the following confident language in regard to their powers in all cases not complicated by loss of parts:

"Those females, however, who labor under prolapsion from the mere descent of the vagina, arising from its relaxation or loss of tonicity, can be cured by the pessary. I take it for granted, that every living tissue has an inherent tendency to contract, and when that tendency is not carried out into ex-

ecution, it is because something resists, antagonizes, prevents it from obeying its law. To support, then, a vagina at its normal elevation within the pelvis, is to take away the resisting, antagonizing, preventing cause, and to allow it with time to recover its normal density and solidity.

"I mean not to say that this is always the sole thing needful to the cure; but I do suppose that it is in many instances the only medical or chirurgical process demanded, since the freedom from pain or inconvenience that follows the timely application of a proper pessary sets the woman free from the bonds of her symptoms, and enables her to take advantage of the restorative power of diet, air, exercise, bathing, traveling, and other hygienic methods, the wise and prudent employment of which may be expected to repair the mischief of debility and relaxation, not as to the vagina alone, but as to every part and parcel of her living system.

"Where the woman's general health, however, is broken, and her great alimentary, respiratory and circulatory functions overthrown, we should gather by careful inquiry and observation the indications of treatment, and pursue them to a subduction of the special evil or evils. A woman may have bad health from deranged action of the chylopoietic organs, requiring the exhibition of blue pill, taraxacum, alkalies, nitro-muriatic acid, eccoprotics, or even purgatives. She may have neuralgic or neuropathic affections, springing from a vice in the hæmatosic tissues, from exaggerated vital sensibility of the heart, etc. In all these varieties of complaints, whose name is legion, let the especial sin be found out and eradicated.

"The bitter tonics, bark, wine, the chalybeates, a trained health, the exact indication of the diet as to quality and quantity, the amount of wine, malt liquor, etc.—these are the problems you are to solve, and upon their correct solution depends the question whether you are to have the great satisfaction of seeing your patient restored to health; or whether she, by a dawdling, indeterminate course of counsel and prescription, is to be left to drag out the weary years of broken health, lapsing from one evil to another, until, under the first serious attack of disease, she falls the victim of what is truly denominated a broken constitution. Who broke that constitution? The disease by its violence, or the doctor by his want of foresight, zeal and intelligence?

"The pessary, then, is to be regarded as the suspensory, as the splint, as the bandage; and, in truth, as happens in many other cases of surgery, these are the only indications. But as in surgery you would not, perhaps, treat an orchitis solely by

the suspensory, but would make certain prescriptions, with a view to abate constitutional or local derangements of the circulation, the absorption, or the innervations of a part, so in the management of the prolapsions, you might not rest content with the curative power of the pessary alone, but provide the other juvantia of which I have already made mention.

"How long shall a woman wear the pessary? An important question, that cannot be solved but upon experiment. Several months will in general be required in any case, because the fastidious delicacy of a female will always prevent her from disclosing to you her distress in its early stages, and you know that chronical disorders are more difficult of cure than recent or acute ones. Hence I repeat that the cases that may come under your care are very likely to prove tedious and protracted; they will be mostly chronical."

We take leave of these Letters with the conviction that they will be productive of great good. They will be read with attention by many who would not have patience to wade through an elaborate, systematic treatise on diseases of females, and there is something in the dashing, random style which serves to impress their sentiments upon the memory. We do not undertake to say that the style is the best; it would probably be hazardous to assert that it is even a proper one for such a subject; but we must say, that it has contributed its share towards the great pleasure with which we have read this volume. Certainly we should be very far from advising the pupils of the author to become his imitators in this respect, but a book, now and then, thrown off in this careless manner, the grave scientific matter interspersed with anecdote, humor, gossip, poetry and sentiment, gives variety to our professional literature, and is not amiss. It pleases the fancy, while it instructs the judgement and stores the memory, and affords the reader a hearty laugh when he is least expecting it.

ART. VII.—*A Practical Treatise on the Causes, Symptoms and Treatment of Spermatorrhœa.* By M. LALLEMAND, formerly Professor of Clinical Surgery at the University of Montpellier; Member of the Royal Academy of Medicine of Paris, etc. Translated and Edited by HENRY J. McDOUGALL, Member of the Royal College of Surgeons of England; Fellow of the Royal Medical and Chirurgical Society; and formerly House Surgeon to the University College Hospital. Philadelphia: Lea and Blanchard: 1848. 8vo. pp. 320.

This is an elaborate treatise on a subject but little studied, we incline to believe, by most medical men, and yet it is one which is worthy of serious attention. The author in his preface states, that during a period of fourteen years, he "has collected more than one hundred and fifty cases in which involuntary seminal discharges were sufficiently serious to disorder the health of the patients considerably, and even sometimes to cause death." Affections originating from this cause are so obscure as often to be mistaken. Generally they are referred to the brain or the stomach, and the remedies being addressed to those organs prove unavailing or mischievous.

These discharges present themselves under various conditions, differing much in their respective degrees of importance. Occurring spontaneously during sleep in a healthy and continent person, they are at least harmless. But they may become excessive, and so give rise to serious inconvenience, or, being excited by inordinate indulgence, may induce a state of irritation causing a hurried discharge of the secreted fluid, without complete erection, and almost without sensation. Lastly, it may go so far as to allow the expulsion of the semen without either erection or enjoyment, especially during defecation or the expulsion of the urine.

It is far from being true, as is generally believed, that diurnal pollutions are always the result of venereal excesses, or of vicious habits. This the author proves by many conclusive examples, and he shows that by a skilful diagnosis and a

timely application of preventive or remedial measures many of these very distressing cases are easily cured. Very often they proceed from chronic catarrh or irritation of the bladder. Blennorrhagia is a frequent cause. Our author's remedy is given in the following extract:

"Not long since cauterization of the prostatic portion of the urethra was looked on as the extreme of rashness, so much was the introduction of the least particle of the nitrate of silver into the bladder dreaded; although these fears were only founded on argument, they were generally received, and seemed so natural that I was influenced by them for several years. I have stated in another place the means by which I shook off these foolish fears, and the successful results that have followed the application of the nitrate of silver to the mucous membrane of the bladder in catarrhal affections of that organ. Since that time, whenever I meet with cases in which the affection of the prostatic mucous membrane extends to that of the bladder, I begin by cauterizing the latter, and I continue the application as far as the bulb of the urethra while withdrawing the instrument, by inclining it rapidly to the right and left. It is not to take the length of the canal that I introduce a catheter in these cases, but in order to empty the bladder completely, so that the nitrate of silver may act with more energy. We have just seen the effect of this treatment: a patient who previously passed urine two or three times in the hour was enabled to retain the excretion as long as is usual, and at the same time the spermatorrhœa from which he suffered was cured."

Patients troubled with this affection micturate more frequently than natural. The kidneys are in a state of excitement, as are also the testicles. On the efficacy of the nitrate of silver in this excited state of the urinary apparatus, our author has the following remarks:

"It is by no means astonishing that in this state the application of the nitrate of silver to the prostatic mucous membrane should produce effects more direct and powerful than those of any other remedy. We know well how promptly and effectually nitrate of silver acts on tissues which are granular, injected or swollen from the effects of prolonged inflammation. Its results are especially evident in the chronic oph-

thalmia of scrofulous patients. Soon after the nitrate has been applied, the tissues empty themselves, contract, and become paler, and they retain an energetic action which preserves them from a relapse, to which the patients are often liable when a cure has been obtained by other means. On this account I have employed nitrate of silver in the chronic inflammation of the vagina and neck of the uterus, which keeps up leucorrhœal discharge in so many cases, and in chronic catarrh of the bladder, which is so difficult of cure by other means; and I have always had cause to be pleased with its action in these affections."

Other causes of spermatorrhœa are enumerated by the author, among which cutaneous affections appear to hold a prominent place, acting, however, rather as adjuvants than as the chief agent, for the causes of this disorder, according to Mr. L., rarely act singly. Diseases of the rectum may be mentioned as further causes. These are sometimes mechanical, as stricture; at other times, it is irritation of the bowel, from long continued diarrhea, or from hemorrhoids, constipation or ascarides. The following case, in which the latter cause kept up the discharges, is instructive:

"I have recently been consulted by one of my former pupils for a case in which the discharges were very serious, and had resisted the most various modes of treatment. They were attributed to masturbation, and the patient's confessions justified this opinion; yet a passage in his letter convinced me that a mistake had arisen on at least one point. After speaking of supposed hemorrhoids which irritated the margin of the anus, the patient added that the pain and itching he felt there was such that he often introduced his finger forcibly into the rectum, and had several times brought down ascarides on withdrawing it. This circumstance, previously neglected, caused me to think that the ascarides, if they had not caused the pollutions, at all events kept them up, and I prescribed accordingly, with success. We must remember, then, that the emissions may be kept up in persons who have practiced masturbation, by the presence of ascarides, even in cases in which these entozoa have not excited the habit; and on this account it is necessary to consider their presence with much attention."

But by far the most fruitful causes of this affection are

"abuse" and venereal excesses, melancholy and most disgusting examples of which are related by the author. We have not room to quote any of them.

The treatment must vary with the cause, and hence the importance of examining carefully into every case. When ascarides, structure of the rectum, hemorrhoids, constipation, or any such trouble is at the bottom of the disorder, the remedy is very simple. Oftener, however, it has its origin in chronic inflammation of the urethra, for which the other treatment is demanded. The remedy in such cases is cauterization, concerning which our author remarks as follows:

"This operation is especially indicated in cases of chronic inflammation, or irritation of the urethra; its results may be considered certain when involuntary discharges follow a common clap, or non-contagious gleet. I have also found it successful in many cases where atony, or relaxation seemed to predominate, and in a few cases of a marked nervous disorder, and genital pre-disposition. In the latter cases, however, the benefit derived from cauterization has seldom proved permanent, though I believe that by changing the condition of the tissues, the foundation has been laid for the successful use of other means.

Before proceeding to cauterization it is indispensably necessary to introduce a catheter; for the double purpose of taking the exact length of the urethra, and of completely emptying the bladder. On slowly withdrawing the instrument, during the escape of urine, the stream is arrested as soon as the eyes of the catheter enter the canal, and recommences when they are again pushed into the bladder. The penis being then moderately stretched, the thumb and fore finger should be applied to the instrument at the point of the glans. When the catheter is withdrawn, the distance between the finger and thumb and its eyes, gives the exact length of the urethra, and this must be immediately marked on the *porte-caustique*, the eyes of the catheter being applied to its olivary extremity, and the position of the fingers indicated by fixing a little slider on the stem of the instrument. When the *porte-castique* has penetrated so far into the urethra, that this slider touches a point of the glans—the penis being in exactly the same state of elongation in which it was when the catheter was introduced—it is clear that its olivary extremity will be in precisely the spot previously occupied by the eyes of the catheter,

when the length of the canal was taken; that is to say, at the commencement of the neck of the bladder—a position which it is highly important to the operator to be assured of.

The bladder must be completely emptied, in order that no urine may penetrate into the tube of the *porte-caustique*, and that none may enter the urethra during cauterization. When the caustic is wetted by the urine, it acts much less energetically than if it were dry, and its action extends to parts where it was not required. The inflammation set up may, under these circumstances, be insufficient to fulfil the desired object, although at the same time, extremely painful on account of its extent."

The cauterization is practised to bring on a lasting change in the condition of the tissues, and ought not to be carried to the point of producing a slough. The author observes:

"It is now twenty years since I first commenced the practice of cauterizing the prostate in cases of ancient gleet, which had resisted all other kinds of treatment; very soon afterwards I applied the same powerful means to the treatment of involuntary seminal discharges. Since that time, I have performed the operation almost daily, and I have never seen, in my own practice, any of the violent effects, such as retention of urine, hemorhage, long-continued violent pain, narrowing of the passage, etc., described by some operators as supervening. Indeed, I should almost doubt the accuracy of these descriptions, had I not been consulted in one or two cases in which the symptoms had been set up. Such ill effects result from the injurious and absurd practice of some surgeons, of cauterizing the urethra during a fixed period of time, watch in hand. The time required to glance at the second hand, is more than sufficient for applying the caustic.

During the first days subsequent to cauterization, baths, enemata, and diluents should be prescribed, with milk and vegetable diet, so as to dilute the urine as much as possible. All fatigue should be abstained from, and exposure to cold rigorously avoided. For two or three days micturition is frequent, painful and accompanied with the escape of a few drops of blood. But these symptoms soon pass off, provided no imprudence be committed. I have, however, known the pain continue for ten days or more, in patients who committed errors of diet, or fatigued themselves too early, or who exposed themselves to cold or damp."

The patient and physician ought to be on their guard against expecting the curative effects to follow too soon. They can hardly be looked for earlier than a fortnight, and a month is necessary to decide whether the remedy has been effectual. The author records his opinion that but for the application of the nitrate of silver, in this manner, two thirds of the cases of spermatorrhœa would be incurable.

Art. VIII.—*Elements of the Principles and Practice of Midwifery.* By David H. Tucker, M.D., Professor of the Principles and Practice of Medicine, and formerly of Obstetrics and the Diseases of Women and Children, in the Franklin Medical College of Philadelphia. With numerous Illustrations. Philadelphia: Lindsay and Blakiston: 1848. 412 pp. 12mo.

This neat volume is one of a series, intended to comprise a library for practitioners and students. It is of portable size, well printed, on white paper, and strikes the eye favorably. The illustrations are well executed, and of a character to aid the student in comprehending the text. In a word, the work is just such an one as the practitioner would desire for a *vade mecum*, or the student for an introduction to the study of midwifery.

The anatomy of the female is presented in the first chapter, and this is followed by an account of the functions peculiar to the sex. A chapter is devoted to generation and the mode in which it is effected. The prevalent theory is summed up as follows:

"The female furnishes the germ, egg, or ovule; which pre-exists, or is produced, in indefinite numbers, in the ovarium; which maturates at certain periods, ruptures its natural covering, and is brought into contact with the seminal fluid, either at the ovary, or in the oviduct, or in the uterus. The male, on the contrary, furnishes a fluid, composed not of animalcules, but of bodies having the power of motion, like the epithelial cells, &c.; that these bodies are carried by an unknown power to the fallopian tubes, or even to the ovaries; when, meeting with the ovule divested of its coverings, by a

union of the two, how, we know not, *vitality results;* the *being* thus formed, being composed of principles from each parent, will at times present traits of resemblance, both moral and physical, to either one or the other, or perhaps both parents."

The ovum, fetal membranes, circulation and parts, are next described, to which succeeds a chapter on pregnancy, in all its forms, normal and abnormal, its signs and term of duration. The diseases incident to pregnancy are then briefly adverted to, and finally labor and its concomitant dangers complete the range of subjects comprised in the volume.

ART. IX.—*The United States Farriery, and Zoological History of Horses, Cattle, Sheep and Hogs.* Connected with the Therapeutical illustrations of Medicine. Compiled from the most approved Authors, by BUELL EASTMAN, M.D., Author of a New Medical Practice and Treatise on Human Diseases. Cincinnati: C. Cropper and Son: 1848. 184 pp. 16mo.

The subject of this little volume, we hesitate not to say, is one of dignity, and ought to find favor with every humane and enlightened mind. It is as clearly our duty as it is our interest, to study the diseases of the animals associated with us in our destiny, and upon which the comfort and progress of human society depend. Our readers have been informed, by the letter of Dr. Brooks from Paris, published in a former Number, how great is the attention paid in France to Veterinary surgery, and there are satisfactory indications that the subject is growing upon the attention of our brethren in America. The volume before us is not one of the highest class, but it contains valuable information on many important points, and being cheap, is likely to circulate extensively and do much good. It embraces in the first part, a full catalogue of the diseases of the horse, with their remedies. The second part is devoted to cattle and their diseases; the third embraces sheep, and the fourth hogs. Besides the matter strictly professional, the author has given in his work much other useful information, and has interspersed it with pertinent remarks on our duty to animals.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Westminster Medical Society. *The prevailing Influenza.* Dr. Lankester in allusion to the great prevalence of the present epidemic, observed that, contrasted with the influenza of former years, one of the characteristics of the present visitation was its greater prevalence and less severity. He had found among the patients attending the Pimlico Dispensary that many were affected by bronchitis; but out of one hundred and fifty instances of the disease, he had met with but two cases of pure pneumonia. Sore throat obtained in about half the cases; this symptom was attended by difficulty in swallowing. In some instances, the disease became even diptheritic. The general nervous symptoms, the depression and pain in the head, were similar to those which had been exhibited in former epidemics. The same law with respect to depletory measures held in this as in former visitations; for, however urgent the symptoms appeared, depletion was but ill borne. Generally, he thought the less we did the better, for debility would follow any kind of active treatment. He had seen one case assume all the characteristics of typhoid fever from too active treatment.

Dr. Ogier Ward said, that in Kensington the influenza presented the usual characteristics enumerated by Dr. Lankester. The pain in the head was the most general symptom; the sore throat prevailed in four-fifths of those attacked; and he had usually found it best relieved by an inhalation of warm vinegar and warter. It was by no means a violent disease. The only case he had seen of much severity was a case similar to diptherite, and which he had successfully combatted by Bretoneau's system. In some cases in which the pain in the

head was most severe, the pain had been relieved by spontaneous bleeding from the nose. This might be a useful hint for practice, but he had never ventured on even local bloodletting. He then read a paper on

The treatment of Asiatic cholera in the stage of collapse.—He confined his observations to the collapsed stage as being most fatal, and therefore the best test for the utility of remedies; and in order that he might effect his purpose of ascertaining the most efficient remedies impartially, neglecting the results of his own experience, derived from nearly 400 cases, he had investigated the numerous reports and returns to the government on the subject, and had thence selected those remedies which, from the statistics of the numbers cured by their use, or from the description of their direct effects, appeared to be most trustworthy; and he had the candor to state, that by this process he had been induced to regard with more favor certain remedies which a prejudice, derived from a limited experience, had led him to consider as worse than useless. In reply to those who thought no treatment of any service, he instanced the frightful mortality in India, Persia, and Russia, where little or no medical aid was procurable; and took occasion to congratulate the medical men of this country on the low rate of deaths (one-third) compared with the mortality in France or any country in Europe, which he attributed, under Providence, to their superior practical knowledge of disease in general. The idea of the nature of cholera that seemed most consistent with its symptoms and with the effects of treatment was, that it is the prolonged cold stages of a peculiar form of fever, presenting more analogies with continued than intermittent fever, the effect of a poisonous miasm, which, if very intense, destroys the patient, without the occurrence of any active symptoms, in a few hours; but in other cases induces a gradually increasing congestion of the internal venous system, which relieves itself by the effusion of serous fluid into the stomach and bowels, which is as speedily removed by the actions of vomiting and purging. The blood thus deprived of its serum becomes thick and black, and is deprived of its vital properties to such a degree, that, unable to imbibe oxygen in the lungs, it ceases to stimulate the heart, which organ is thus unable to propel the blood to the extremities or through the lungs. This is the stage of collapse, in which the patient is blue, cold, pulseless, and voiceless, and his features are shrunk to such a degree that his dearest and nearest relatives do not recognise him; and this is the most fatal stage and that least under the

influence of remedies. Nevertheless, even under these deplorable circumstances we must not relax our exertions; and the list of curative means employed with success, proves that much may still be done for the relief of the patient. The most approved external remedies were, external heat, cold effusion, and counter-irritants. The author attempted to account for the favorable opinion of the application of cold in Persia, and of heat in Russia and the rest of the northern countries, partly by the concordance of such ideas with the ordinary feelings of the inhabitants of such different climates, and partly by the notion that in Persia, where the thermometer is above 98° in the sun, the patients, exhausted of their fluids by the disease, would be dried up and mummified by any attempt to keep up the temperature of the body by exposure to the sun's heat; whereas in Russia, &c., it was supposed, and probably with truth, that as cold is a direct sedative, its opposite, heat, was necessary to restore the vital powers. All the reports concur in the efficacy of cold effusion in inducing reaction; and its success appears to have been in proportion to the violence of the shock. Counter-irritants were successful only in connection with other remedies; but they deserve attention from their stimulating power, and their readiness of application. Bloodletting was useful in every stage in relieving the congestion and rousing the heart by removing the load that oppressed it. In the state of complete collapse salt-and-mustard emetics, to excite the system, followed by bleeding, was a favorable mode of treatment. The internal remedies most to be relied on in the stage of collapse may be classed under the heads of revulsives, stimulants, and specifics. The first class, besides emetics of salt and mustard comprised tartar emetic and croton oil, and calomel in large doses. The effect of each was to check the vomiting and purging; but the three last were remarkable for their power of restoring the flow of bile, of a dark-green color, when tartrate of antimony or croton oil had been used; and like blue ointment, when the calomel had been given. The action of all three is supposed by the author to be irritating to the mucous membrane of the stomach and bowels, of which it stops the secretion by changing the action of the part. The blood thus diverted from the membrane returns without loss into the portal system, and by the secretion of fresh bile, previously pent up in the gall-bladder, is expelled, the spasm of the duct having been relaxed by the irritation of its orifice, produced by the tartrate of antimony, calomel, or croton oil. The blue color of the bile when calomel was used may perhaps be ex-

plained by the decomposition of the salt by the alkali of the bile. From the number of returns in its favor, besides the extensive experience of the author in its use, he is disposed to place most reliance on the croton oil, as its action is simply irritant, (many of the patients complaining that it made their throats sore when given in solution or suspension;) whereas the tartar emetic is a direct sedative, and, hence, may be dangerous; and the author had given calomel most extensively in large doses without ever having seen such effects produced as those which he has mentioned above from the reports of others. Stimulants, after a fair trial, were almost universally condemned; and yet it is remarkable that M. Magendie had more success with his punch than any other of the Parisian physicians. His great rival Broussais was so unsuccessful, that he entirely relinquished his care of cholera patients at Val de Grace. Opium, either in small doses as a stimulant, or in large ones as a sedative, was equally unfit to be relied upon. The last class—specifics—comprises calomel, with or without opium, cold water, salines, and quinine, although the author never met with a single case of real cholera in which he could trace the recovery of the patient to the influence of calomel, nor ever observed that it produced any specific effect whatever; still, from the almost unanimous approval it has met with, and his own experience of its benefit in English cholera, he would strongly recommend it for future experiment, as being, at the least, perfectly harmless, though taken in enormous doses. He would also adopt the use of cold water *ad libitum*, upon the faith of the reports in its favor, though his own experience is decidedly opposed to it. Salines, on the other hand, when well diluted, have, besides a number of most favorable reports of their efficacy, this hypothesis in their support—viz. that they restore to the blood by their endosmosis through the coats of the vessels, if not by their being absorbed directly into the circulation, the saline matter removed by the serous evacuations; whereas, the water, if it be not rejected by vomiting, as in the author's experience, could scarcely be absorbed, the tendency of the venous system being to empty itself; nor, if it were absorbed, could it supply to the blood those saline elements of which it had been deprived. In the author's experience, the best mode, though a painful one, of arresting vomiting in all cases, is to keep the stomach empty; when, after a time, it will cease to suffer the action of vomiting, whatever that may be. From an attack of English cholera he suffered, and thus cured, the last efforts of which produced only bloody mucus, as well

as from other similar results after emetics, the author believes that the stomach contracts itself during vomiting. Quinine, viewed in reference to the hypothesis of the intermittent nature of cholera, seems worthy of further trial than it has yet experienced. In conclusion, the treatment recommended by the author in the stage of collapse would be the following, and much in the same order as the remedies are stated: Cold effusions; hot air; external counter-irritation, and frictions; venesection; mustard-and-salt emetics; cold water *ad libitum*, or Dr. Stevens' salines; calomel, and tartrate of antimony, alternately, in large doses; and, if all failed, croton oil.

Dr. Lankester spoke of the fallacies likely to arise from placing too much dependence on individual experience in this disease; we could scarcely arrive at any definite conclusion from the treatment of fifty or a hundred cases in any single district. Every remedy which had been employed had its advocates, among others he might allude to one not mentioned by the author—carbonic acid, which was said to be most successful. We must, in the absence of sufficient information on the subject of treatment, reason from analogy, and after observing the symptoms, inquire what would relieve analogous symptoms in other diseases. Let them take the collapse, for instance; in this condition the blood all left the surface, and the internal organs were congested. To bring the circulation back to the skin was clearly indicated; hence the application of hot air to the surface, and stimulating liniments, were recommended and said to be used with success. In Russia, camphor liniments for this purpose have been found of great service. Another object was to supply to the blood the fluid which was lost by the copious watery evacuations. These evacuations took away the saline matters from the blood, and hence cold water with salines was no doubt an important agent. But salines, when so administered, must be given in small quantity in large quantities of water, for if the opposite were employed, it would defeat the object of the administration. The liver was evidently deranged in these cases, and it was most important to restore the action of this organ, for he believed it was quite proved that the presence of bile in the intestines was essential to the production of animal heat. Calomel was hence indicated, but not, he thought, in large doses; it might be combined with small doses of opium to prevent its being carried off by the bowels.

Dr. King had the charge of a large district during the prevalence of cholera. At first he was quite at sea how to act in the stage of collapse. He first employed Steven's plan of

salines, with small doses of calomel and opium; but almost all the cases were fatal. He then pursued a stimulating plan, with a similar result. He ultimately adopted the system recommended and practiced by Mr. French. He placed a pail of cold water by the bedside of each patient, and allowed them to drink *ad libitum;* when the patient began to vomit, he considered, as a general rule, that he would do well. He should mention that, in addition to the water, he gave large doses of calomel, which might have had a share in producing the result. Those who recovered were all more or less affected with the calomel. When hiccups came on, he considered the patient out of danger. He found bile in the evacuations after this treatment, the fæces being of the color of the blue mercurial ointment. He did not think the heart the chief seat of the disease. All pregnant women died. He spoke of the necessity of perfect repose in the treatment of the disease, and stated his belief that many patients had died on removal to the hospital. More success attended those who were treated at their own homes. Croton oil, according to his experience, was not of service. Hot air applications did harm; cold air was preferable. Brandy and all stimulants were injurious.

Mr. French said, that in conducting the treatment of the collapse of cholera, before using indiscriminately the articles of the materia medica, we should study the curative process adopted by Nature to this end. We readily enough admit that this kind of knowledge is absolutely necessary in conducting the treatment of mechanical injuries, and that surgery is only a successful art when this principle is borne in mind. The mode in which reaction is accomplished by Nature from the state of collapse in cholera, is a process with which I am perfectly familiar, by direct observation, and it is very simple. It consists in absorption of water into the bloodvessels, and in vomiting. It may be confidently stated, that a patient who is no longer purged, and who is vomiting, is undergoing reaction in the most favorable way possible; just as "adhesion" constitutes the most favorable and rapid cure of certain wounds. But to state the method more fully, it may be thus expressed:—

1st. Absorption of water into the bloodvessels; the patient's intense thirst inducing him to take this fluid freely.

2dly. Nausea; which produces a general relaxation of the system, thus diminishing obstruction to the passage of the blood in the congested vessels.

3dly. Vomiting; which mechanically assists in driving forward the blood in the congested vessels.

In the more intense states of collapse, the process of reaction is not established before the vomiting has continued for three days. In slighter cases, collapse, reaction, and convalescence, may all occur in twenty-four hours. When, however, the disease pursues this course, cases which presented the most hopeless aspect may do perfectly well, either becoming directly convalescent, or if local congestions and inflammations ensue, they assume an active character, and are under the control of art, while if this process has been frustrated, they commonly pass into a state of congestive and typhoid fever, in which they either sink or recover with great difficulty. As to the essential nature of the disease, I believe it consists in a poisonous influence which is exerted directly on the heart, depressing its action; for these reasons:—

1st. The heart's action is always diminished in this disease.

2dly. No essential lesion of any other vital organs really exists.

3dly. All the other symptoms and physiological conditions admit of explanation on this hypothesis.

The first argument is admitted by all observers. It will be also admitted that the functions of the brain are remarkably well performed until the very period of death. Then, there is no asphyxia, for these reasons—the mechanical apparatus is undisturbed. We are familiar with the symptom, "coldness of the breath," (inconsistent with asphyxia;) the recumbent position, so necessary to the cholera patient, would not be suitable for the state of asphyxia. Dr. Parkes, who has recently published a work replete with interesting facts on cholera, denies the paralytic condition of the heart, because the left ventricle was always empty; he also found that the lungs were extremely collapsed, and infers that the cause of the arrest of circulation must be sought for in the blood itself. The average duration of the disease, in the cases in which Dr. Parkes made post-mortem examinations, was ten hours; the observations were made sometimes a quarter of an hour after death; in all the cases the heart was found inirritable to the stimulus of the knife, while the muscles contracted under this stimulus. With the hope of learning something on these points, I destroyed a rabbit in two hours by repeated doses of infusion of digitalis; the animal became gradually too feeble to move, breathed quickly, and died: on opening the body, the heart was still feebly pulsating. The lungs were completely collapsed, and the left lung was so firmly contracted, that it sank in water; it readily admitted of inflation. The right side of the heart contained blood, and there

was a very small clot in the left auricle; but the left ventricle was perfectly empty. The heart was quite as irritable to the galvanic stimulus as the muscles. From this experiment I infer, that the influence of cholera on the circulation is exerted in the same way as that of digitalis. With regard to the condition of the blood in cholera, I belive it to be the best under the peculiar physiological condition of the patient. Blood in the normal state is intended to be constantly circulated with a regulated amount of force. If this force be exceeded, we find that the fluidity of the blood is increased, that it acquires a brighter hue, and that it possesses the power of coagulating more firmly when stagnent. The converse of all this obtains with diminished force of circulation. To this alteration in the constituents of the blood is possibly owing the absence of fibrinous deposits in the heart of the vessels; the retention of its homogeneous condition, and its adaptation for the re-admixture with water during the reaction, so soon as the baneful effects of the poison shall cease to be exerted in the system. Thus, to sum up:—In proportion to the force with which the circulation is controlled, either death results, or the blood is diminished in quantity, and altered in quality, by a secretion from the alimentary canal—the overwhelming effects of sudden congestion and fibrinous deposits being probably thus prevented.

Dr. Ayres had found more success from the employment of stimulants, in the stage of collapse, than from any other remedies. He had given brandy in large quantities, and opium, with the view of relieving the cramps, which were so distressing. He differed from the views advanced by Mr. French, respecting the pathology of the disease, and thought that the loss of the fluid alone was sufficient to explain all the effecss on the circulation.

Dr. Webster remarked that it was satisfactory to know from the Reports of the Register-General, that last week no case of cholera had occurred in London—that two had occurred in the first week of November and seven in October; and that in the summer quarter ending September 1847, there were only 98 deaths from this disease, whilst in the corresponding quarter of 1846, there were 197 deaths from this cause.

Dr. Ward, in reply, said that he confined his remarks in the paper to the treatment of the disease, more from the experience of others than from his own; but he might observe that, curiously enough, he was in a district close to that occupied by Dr. King, in Staffordshire, without knowing it, until

the remarks made by that gentleman on the present occasion. He might observe that he had tried the cold water plan recommended by Mr. French. The first case was favorable to its employment, but future experience had shown him that it was not a successful plan of treatment. Pregnant women attacked with this disease after aborting, all died. He had employed croton oil in the fifteen cases, all of which recovered but one, who died from the secondary fever.—*London Med. Gaz.*

Epilepsy successfully treated with the Nitrate of Silver, and an Antispasmodic Powder composed of sage, ginger, and mustard. By CHARLES D. HENDRY, M.D.—Of all the diseases to which the human frame is subject, no one is more alarming in its symptoms, or more fatal in its effects, than epilepsy. It is a disease of the nervous system, located in the brain, and exclusively chronic in its character, attacking persons of all ages, from childhood to old age, without regard to constitution. Often times its victims are among the most robust, but more frequently the emaciated. So far as my experience will warrant an opinion, those with impaired constitutions, are more liable to suffer from this malady. Viewing epilepsy as a chronic disease from its commencement, and having been baffled in the treatment which had been confined to the paroxysms, for which antiphlogistic remedies have invariably been resorted to, I resolved upon an opposite course, and have employed tonics and stimulants. For several years I attended Judge R., of Burlington county, for epilepsy, aged fifty years; of plethoric habit, and sanguine temperament. The treatment in his case had been confined to the paroxysms, for which copious depletion with the lancet had invariably been resorted to without benefit, the attacks returning more frequently and severely. Having lost all confidence in the course adopted, I resolved upon the opposite,—a stimulating treatment. The premonitory symptoms, such as stupor and difficult deglutition, were always prominent some hours before the disease would be fully developed. In this stage I advised the free use of brandy in warm water, to be given as frequently as circumstances required. The disposition to epilepsy soon disappeared, and he lived several years, and enjoyed uninterrupted health. The principal cause of epilepsy, I consider not to depend upon congestion,—from a predisposition of blood to the brain, but to debility, giving rise to paralysis, and

as corroborative evidence of this theory, I will cite several prominent cases, of some twenty, treated successfully, without an exception, by a tonic treatment. All of them had been subjected to an antiphlogistic course, without relief. A great deal depends upon the perseverance of the physician, as there is always a strong tendency in the disease to return. By pursuing this course, I am confident a large majority of the epileptics of the country will be banished from the incurable lists of physicians, and relieve them of the unpleasant task of so often pronouncing them beyond the reach of professional aid. The great mistake in the treatment of epilepsy, has in a measure been owing to its having been confined to the paroxysms, when in reality the intermission is the time for action, bracing the system with the most active tonics and antispasmodics, and in this way producing a radical change in the nervous system. As I have no disposition to occupy the columns of the journal unnecessarily, I will be content by citing five prominent cases, which I trust will suffice to give countenance to the treatment proposed.

Case I.—Mr. J. J. of Gloucester county, by occupation a farmer, aged fifty years, of full habit, general health impaired. He had been subject to epilepsy for three years, the attacks recurring every six weeks, and varying from one to three convulsions His family physician at sundry times resorted to copious depletion, both general and local, cathartics, emetics, revellants, &c., but all to no purpose, and finally abandoned his case as incurrable. In the month of March, 1845, I commenced the treatment of his case with one-fourth grain doses of the nitrate of silver, in form of pill, three times a day, in a teaspoonful of the antispasmodic powder, mixed in an equal quantity of molasses. This course was continued three months, at which time his disease had assumed a more favorable aspect. Half grain doses of the pill was now advised, and a gradual increase of the dose of the powder; at the expiration of six months the disease left him, and now two years have elapsed and no return of the disease. It was not thought advisable to make any change in his diet, except to abstain from the free use of coffee.

Case II.—Mr. A. D. of Camden county, aged 35 years, with constitution much impaired, and emaciated, complexion sallow, and imbecile in mind; he had been afflicted with epilepsy from childhood, and was subjected to medical treatment in early life whilst he resided in Burlington county, but without benefit. For a number of years his case had been considered hopeless, the paroxysms, would return every six weeks

and continue irregularly for several days. During this period he would have from ten to fifty convulsions, the attack resulting in a state of decided mania. In December, 1844, his friends made application to me respecting his case. The treatment advised was so similar to the preceding case that I will not recapitulate it, but will merely add that in less than three months I had every assurance that the treatment recommended would ultimately effect a cure, and in less than nine months I had the satisfaction to see him relieved of this formidable disease, his constitution reacted, his general health was restored, and I am happy to state there is no appearance of imbecility of mind. Several years have now transpired and his health continues good.

Case III.—The subject of this case was a daughter of Mr. C., of Camden county, aged 3 years. She had been afflicted with epilepsy for six months, constitution impaired; during this period she had more than one hundred distinct epileptic convulsions; primary cause supposed to be gastric irritation. I had charge of this case from the commencement, and resorted to topical blood-letting, with leeches, cathartics, emetics, revellants, and a variety of antispasmodics, but all without the desired effect. After six months' treatment the parents became discouraged, and removed the child to an adjacent county for the purpose of obtaining the advice of several practitioners, who agreed that the patient was idiotic, and any medical treatment would prove of no advantage. On their return I was again called upon to prescribe in her case, and recommended the pill and powder in the accustomed dose without regard to age, and in less than three months the disease left her, and she is now one of the most intelligent and interesting children in the village in which she resides. Eighteen months have elapsed and no return of the disease.

Case IV.—Mrs. W. of Camden county, aged 40 years, of plethoric habit and in the enjoyment of good health, and now in the fourth month of utero gestation. When called to her she informed me she was the mother of four children, and during each term, and about the fifth month, she would be assailed with convulsions, which returned regularly every two weeks during the remainder of the term. She had been subjected to medical treatment in Philadelphia, which was confined to copious depletion with the lancet, counter-irritants, and enemas, but all to no purpose, the convulsions continuing at intervals during each term of pregnancy. About the fifth month I was summoned to visit her, and found her struggling with a frightful convulsion. I was entreated by her friends

to resort to venesection, but as it had on all previous occasions proved of no avail, I objected, and recommended counter-irritants and enemas. After the paroxysm I advised the pill and powder in the ordinary dose. She had not a return of the disease, but passed through the term without inconvenience. This is the first case, under such circumstances, in which I have had an opportunity of testing the utility of this form of treatment.

Case V.—In October, 1846, I was requested to visit the daughter of Mr. J. S. T., of Burlington county, aged five years; emaciated and afflicted with chorea and epilepsy; the former disease evidently the existing cause of the latter. The history of her case I will briefly state. When about two years old she was assailed with epilepsy, which returned every night for some two years, with but one or two intermissions of four weeks, and on one occasion, a short time previous to my seeing her, she remained in a state of stupor for nine days, the result of an attack of epilepsy. Her parents informed me she had been under treatment for a long time, but was finally abandoned as incurable. When I first visited her she was restless beyond description, requiring some one to watch her constantly, and I supposed her intellect to be completely destroyed, and prescribed for her with great reluctance; however, in the course of four weeks I completely removed the chorea with equal parts of the bi tart. potass. and flor. sulph., in teaspoonful doses, mixed in molasses, three times a day. I then ordered the pill and powder in the accustomed doses, and in six months was assured by her parents that she was perfectly well. The last attack was in April, 1847.—*New Jersey Med. Reporter.*

Death from the Inhalation of Chloroform.—Report of the principal facts connected with a fatal case of chloroform inhalation, which occurred in Cincinnati, on the 23d of February, 1848:

General history.—The subject of the following report, Mrs. Martha G. Simmons, was at the time of her death thirty-five years and ten months old. Her husband states that she generally enjoyed excellent health; sometimes she was 'nervous,' and suffered occasionally with neuralgic pains about the face and pain in the ear, apparently arising from decayed teeth. She also suffered at times from 'sick headache.' She was the mother of six children, five of whom are still living; her last

accouchement occurred eight weeks previous to her death. Nothing unusual occurred, either at the time of parturition or subsequently; her health remained good, and the ordinary quantity of milk was secreted.

On the 23d of February she dined at a quarter past twelve o'clock, and after dinner walked to a dentist's, a distance of about three-fourths of a mile, for the purpose of having some roots of teeth extracted. She arrived at the dentist's fifteen minutes before three o'clock, appeared slightly flushed from the exercise of walking, but exhibited no alarm on account of inhaling the chloroform.

At three o'clock, fifteen minutes after her arrival, Mrs. S. commenced inhaling the chloroform. Mrs. Pearson and Mrs. Cross, two female friends, were present, and report the following as the events which occurred: The respiratory movements appeared to be free—chest heaving. While inhaling, *the face became pale.* At the expiration of about one minute, the instruments were applied and four roots of teeth extracted. The patient groaned and manifested what they regarded as evidences of pain while the teeth were being extracted, although she did not speak nor exhibit any other sign of consciousness. As the last root came out, which was about two minutes from the beginning of the inhalation, patient's head turned to one side, arms became slightly rigid, body drawn somewhat backwards, with a tendency to slide from the operating chair. At this instant Mrs. Pearson states that she placed her finger upon the patient's pulse, observed that it was feeble and immediately ceased to beat; respiration also ceased *about* the same time. The face, which was previously pale, now became livid, as also did the finger nails; the lower jaw dropped, and the tongue projected a little at one corner of the mouth, and the arms were perfectly relaxed. The females regarded her as being then quite dead. Efforts were made to resuscitate the patient—ammonia was applied to the nostrils, cold water dashed in the face, mustard, brandy, etc. applied. The patient was now removed from the operating chair and laid on the sofa, but she did not breathe nor exhibit any sign of life after being placed in the recumbent position.

Statement of the dentists.—Messrs. Meredith and Sexton, the dentists who operated in the above case, make the following statement: The patient took the chloroform vapor from Morton's inhaler; it contained a sponge (perhaps one-third filling the glass globe of 4½ inches in diameter) saturated with the liquid; to this twenty-five drops more were added when the patient began inhaling. Breathing at first slow; in-

haled twelve or fifteen times, occupying from a minute to seventy-five seconds. One of the dentists thinks she remained about *ten* minutes in the operating chair, and that life was not extinct until the end of that time; the other estimates the time at *five* minutes. One says he does not know whether she breathed after being laid on the sofa or not; the other thinks she did not.

The only material difference between the statements of the females and the dentists relates to the length of time which elapsed from the beginning of the inhalation to the instant of death. The females estimate it at about two minutes, the dentists at from five to ten minutes. It is clear, however, that the patient could not have been laid on the sofa short of five or ten minutes; for one of the dentists went out to a neighboring establishment twice to procure resuscitating agents before the patient was removed from the chair, which probably occupied the time specified. But whether the patient continued to breathe during those five or ten minutes, or whether the pulse and respiration ceased at the end of two minutes, when the last tooth was extracted, as supposed by Mrs. Pearson, seems impossible positively to decide. The most that can be said is, that she died within a very short time —not exceeding *ten* and possibly at the end of *two* minutes.

Medical aid.—After the patient was laid on the sofa, medical aid was sought, and Dr. A. H. Baker was the first physician who arrived; this was probably 30 minutes after respiration had ceased. He immediately pronounced her dead, but proceeded to employ vigorous measures for resuscitation. The principal means employed consisted in artificial respiration, electro-magnetism, and external stimulants. Prof. Locke applied electro-magnetism, which caused active muscular contraction, but no evident effect on the heart. About an hour after the accident, Profs. Mussey and Lawson arrived, and aided in the further employment of the means above specified. Not the slightest sign of life was manifested after the arrival of Dr. Baker; the heart did not respond to the electricity, and the only change produced was some slight removal of the lividity of the countenance by the artificial respiration.

The post mortem examination was made twenty-six hours after death. Present—Drs. Mussey, Lawson, Baker and Mulford.

Examination by Dr. Lawson. Record by Dr. Mussey.

External appearances.—Lips livid, but face pale; bloody froth issuing from the mouth. Anterior surface of the body and limbs free from discoloration, but posteriorly the skin pre-

sented a deep livid hue. Cornea dull and flaccid, and a dull-red horizontal belt extended across each eye, corresponding to the part which was unprotected by the lids; this belt was one-tenth of an inch in diameter, and made its appearance a few hours after death. Limbs quite rigid. Abdomen distended with gas. Patient rather muscular; weight probably from 140 to 150 pounds; hair dark; eyes dark brown; temperament sanguineo-bilious.

Brain.—Integuments contained but little blood. On removing the upper part of the skull, a larger quantity of blood than usual flowed from the vessels of the dura mater. Superficial vessels of the brain moderately distended; two or three ounces of fluid blood, intermixed with bubbles of air, flowed from the sinuses of the dura mater. General aspect, color, and consistency of the brain normal.

Lungs.—Considerably but not intensely congested; crepitated freely at all points; no extravasation. Lining membrane of bronchia slightly congested, apparantly the result of recent catarrh; deeply stained by the blood. Pleura at all points highly injected; six drachms bloody serum in the right, and two ounces in the left chest.

Heart and large Blood-Vessels.—Pericardium contained six drachms of bloody serum. Heart flaccid, *and all its cavities entirely empty;* inner surface of both ventricles and auricles deeply stained. Aorta and pulmonary artery empty; no blood in the cava within the chest, and a very small quantity in the part which lies within the abdomen; indeed, so small was the amount that it could not be appreciated until the vessel was opened. Lining membrane of all the blood vessels deeply stained.

Abdomen.—One ounce and a half of bloody serum in the right hypochondrium. Stomach and intestines distended with gas. Partially digested aliment, amounting to about three gills, was found in the stomach. Liver paler than natural, arising from the absence of blood; kidneys considerably engorged. No marks of previous disease in any of the abdominal organs. Uterus and bladder normal; the former exhibited the usual condition of the organ two months after delivery.

Blood.—Fluid as water in every part of the body; not a coagulum was seen in any vessel. Examined with a microscope, the globules appeared altered somewhat in form; some were irregular in shape, and they seemed generally distended and more globular than is normal; they were also somewhat fragmentary, a part apparantly having been ruptured; their number

seemed somewhat diminished. The color, in every part of the system, was that of dark venous blood.

Sympathetic nerve.—The sympathetic nerve, together with its larger ganglia, including the semilunar ganglion, presented a natural color.

The Chloroform used.—The specific gravity of the chloroform employed was found to be 1.3. It contained some alcohol, but upon the whole is regarded as a fair article; it was the same which the dentists had previously used in numerous cases without any unpleasant results.—*Western Lancet.*

On the Cure of Spina Bifida by Injection of the Tincture of Iodine.—This disease and malformation not only constitute one of the most distressing affections to which infants are subject, being attended often with incontinence of the urine and feces, paralysis of the lower extremities and idiocy, but is also according to the best authorities, and indeed is shown by general experience to be incurable, with few and rare exceptions. For if in the annals of surgery there are to be found a certain number of successful cases, yet when considered with reference to the whole number occurring, it will be seen at once that no plan of treatment yet proposed affords more than feeble chances of success.

Of these methods of treatment, it is not a little singular that the one which consists in evacuating the fluid more or less perfectly should have been generally adopted, notwithstanding that the evacuating of serous fluid by puncture in every other situation is generally found to aggravate the disease. In this case it is liable to prove fatal by removing the necessary compression on the central organs of the nervous system. If the method has sometimes succeeded, it was from the inflammation induced by repeated punctures checking effusion and producing absorption, and not by any means from evacuating the fluid, which only gives it a greater tendency to increase. This danger and that which results from ulcerative inflammation at the point of puncture, on a tissue like the covering of this species of tumor should prohibit its performance. We were led to these views from reflecting on a case of Spina Bifida in the Chicago Hospital, in a girl said to be 13 years of age, in whom the tumor was situated at the top of the sacrum, being nine inches in circumference and about three inches in height, with thin walls. The girl had been paralytic in the

lower members, but withing three years had acquired a partial use of them. She was idiotic, and passed both the feces and urine witout regard to place. From neglect of cleanliness, numerous ulcerations and large cicatrices had, from time to time, been formed upon the pelvis and thighs.

Under these almost hopeless circumstances I determined to inject into the sac a solution of Iodine, with a view of exciting inflammation and procuring absorption. This was done on the 2d Dec., 1847, in the followinng manner: A small puncture was made with the lancet on the sound skin about half an inch from the base of the tumor and a trochar of the size of a common knitting needle carried obliquely into the sac. Through the canula of this a solution of gr. j. of Hyd. Potass. with gr. ss. of Iodine in f. 3i. of water, was thrown into the sac and the instrument witdrawn. A sharp pain followed which soon subsided. Compresses and a bandage were applied to prevent the escape of the fluid, and the child was laid in bed. There succeeded redness, heat and tension of the tumor with tenderness to the touch and some febrile symptoms, for which a cathartic was administered and evaporating lotions applied to the part. In the course of a week these symptoms subsided, and the tumor became soft, yielding, and diminished in size. Compression by means of a roller around the pelvis was then applied, and kept up with as great degree of force as could be borne, but the filthiness of the patient and her indocility prevented this from being applied with regularity. It was frequently removed for twelve hours or more at a time. Still it diminished, and on the 27th Dec. was about half its former size.

At this time a second injection was used of half the strength of the first. This produced but little heat or pain and the compression was continued. On the 15th Jan. 1848, the fluid was so far absorbed as to render it easy to press it down almost to a level with the surrounding skin. A spring truss was then substituted, and at the present time the sac lies in wrinkles, the bony opening can be distinctly felt, and there is no increase of swelling when the pressure is removed. Recently there has been manifested a decided improvement in the intellect of the child, the other difficulties remained the same, but with the removal of the cause the partial paralysis will doubtless gradually disappear. The retention of the natural evacuations must depend upon the development of the intelligence and the gaining of a control over the voluntary muscles. In its present condition, this case shows that the injection of a solution of iodine, followed by suitable treat-

ment, is capable of curing an ancient case of Hydrorachitis, and (so far as a single case can be taken as a guide,) with but little danger. Further experience will be required to determine the strength and quantity of the medicine to be used. the frequency of the repetitions; in younger subjects than this, it is obvious that the dose employed should be not more than a fourth of that used at first in this case.—To those who would deem such a proceeding extremely hazardous, we would remark that a number of facts have within the last few years come under our observation, tending to show that serous membranes are, when filled with serum, much lsss disposed to inflammation than when in a healthy state. Experiments are required to show which among the astringent and stimulating fluids can be brought in contact with them with least danger, meanwhile the safety with which solutions of Iodine may be thrown into the large articulations, into the sac of a congenital hernia, and in some instances into the peritoneum, and in this case into the arachnoid membrane, will free us from the charge of presumption in suggesting that it, or some other solution, may be worthy of trial in those cases of Hydrocephalus, ascites and hydrothorax, which are hopeless under ordinary treatment.—*Illinois Med. Journal.*

Death of the celebrated Professor Dieffenbach.—We announced in a former number the death of this eminent Surgeon. For the following biographical sketch we are indebted to the London Lancet:

A private correspondent in Berlin informs us that this distinguished surgeon dropped down dead, at three o'clock in the day, on the 11th instant, just after lecturing. He had previously been in good health. The career of this talented and eccentric character might form the subject for a romance. J. F. Dieffenbach was a theological student in one of the German universities, in 1812. At the time of the war of liberation he entered the Prussian service, and fought as a private soldier at the battle of Waterloo. After the peace he took to the profession of the law; but from some disagreement with the professor of the university in which he studied, he relinquished that pursuit, and studied medicine. Great were his difficulties, and long his early struggles; at last he came to Berlin, and

there his unwearied energy, his boldness, and thorough determination to succed, finally met its reward. Dieffenbach labored among the poor, and his first rise is owingto the following curious circumstance:—Rust, the celebrated surgeon and anatomist, and at that time proto-medicus of Prussia, one night missed his way on leaving the apartment of a patient, and coming down by a back stairs in one of the great houses or hotels in Berlin, was attracted by a light which proceeded from a small chamber, not larger than a dog kennel, at the foot of the stairs. On looking in, he was not a little astonished to see the apartment occupied by two old women and a young man, who by the glimmer of a small flickering lamp, was operating for a strangulated hernia, on one of the crones, who lay upon a wretched pallet—the operator was Dieffenbach. This was the beginning of his good fortune. Surgery has lost one of the boldest operators in Europe, and the charité clinique its chief attraction: he might have been with justice styled the father of plastic surgery. His improvements in this branch—his operations for the removal of squint, and his various ingenious contrivances for the removal of deformities, and the restoration of lost parts, are already well known. The cause of his sudden death had not been ascertained when our correspondent wrote. He was between fifty-five and sixty years of age.

Application of the Nitrate of Silver to the Larynx in Croup. [Read before the Boston Medical Society for Improvement, by Charles E. Ware, M.D.]—The very great mortality which attends membranous croup, makes every case of recovery interesting, and the treatment, when it has been consistent and efficient, instructive. Although we frequently hear well-informed practitioners talk flippantly of their success in the management of croup, yet every one who is in the habit of discriminating between the two forms of the disease, knows with what a sinking heart and faltering hand he undertakes the treatment of the one, and with what comparative confidence he deals with theother.

Within the last two or three years, the system of steaming by the inhalation of hot vapors of herbs of various kinds, has been tried pretty extensively in this neighborhood, and I should think from the number of successful cases reported before this Society, with encouraging success. One great and most serious objection, however, to this treatment, supposing

its value established, is in many cases the impossibility, and in all the extreme difficulty, of applying the remedy effectually, with any apparatus which has yet been devised, and ingenuity in and out of the profession has not been idle in contriving. This obstacle in the way of the treatment, which would seem to present the most promise, together with some apparent success in the applications of the nitrate of silver to acute inflammation of the tonsils both in children and adults, and the facility with which the nitrate of silver may be applied to the larynx with but trifling irritation in the adult, led me lately to try the application of it to the larynx of a child 5 years old, laboring under unequivocal membranous croup.

I was called to this patient, a boy 5 years old, Saturday, November 20th. The mother said that he began to breathe hard just a week previous, but as he had been subject to attacks of spasmodic croup, in several of which I had attended him, and usually found ready relief, she felt no great anxiety, especially as there was less constitutional affection than he had had in former attacks. His tonsils, also, had been for a year or more somewhat enlarged, and often gave a huskiness to his respiration and voice. On Tuesday he began to cough, and evinced other signs of a cold. These symptoms continued, he playing about, and having appetite, without anything very characteristic, till Friday afternnoon, when the cough began to have a ringing tone, and the respiration to be very labored. I was not called to him till the next afternoon. Then there was the characteristic breathing of croup well marked. It had become sufficiently distressing to occasion great restlessness and jactitation, but was not accompanied by much febrile excitement, nor, as yet, prostration. The general expression of the child was good. On examining the fauces, they appeared red, and the tonsils presented distinct patches of lymph. On the backs there was an almost entire absence of respiratory sound, and no râles whatsoever. The breathing and cough were both dry, with very little râle in the trachea.

He was ordered strong mercurial ointment and a fomentation to neck, and pills of Dover's powder and blue pill once in four hours, and a syrup with opium and ipecac. at intervals between. Under the influence of the opium he got more sleep than during the previous twenty-four hours, but in the morning was no better, nor essentially different.

I now commenced the application of the nitrate of silver to the larynx, using a solution of the strength of a drachm to the ounce, and applying it with one of Dr. Green's whale-

bone staffs. I applied it twice in the course of the first day. The child the first time resisted violently, and I was obliged to use much force. But after having been persuaded once to submit quietly, the operation occasioned so little irritation that he never afterwards made the least objection to it, but allowed me to perform it as effectually as I could have done upon a grown person. The first applications were followed by so much excitement that it was difficult to see what was the immediate effect. But afterwards, when he was more tranquil during the operation, it was obvious that it produced an increased dryness of the cough and respiration, without immediate relief or aggravation of the labor in breathing. In the course of the day he raised twice considerable pieces of false membrane, very well marked, and stained with blood, together with a great deal of very thick, tenacious mucus, which was also occasionally stained with blood. After the discharge of the false membrane, the breathing became much easier, and was never again as labored, as it had been before.

The next day, Monday, respiration, although improved, was still very laborious. There was yet great deficiency of respiratory sound in the back, and absence of râles. After the application of the caustic, which was applied twice this day, the fauces appeared red, but there was no lymph visible. From this time the amendment, although slight, from day to day was constant, till Friday, the 26th. No lymph was seen upon the tonsils. The caustic was applied once a day. Friday night, the breathing was more labored than the night before, and Saturday morning I again saw lymph upon the tonsils. Through Saturday and Sunday, however, he continued to improve, and Sunday evening uttered the first loud word which he had been able to speak since I had seen him. The caustic was now omitted, as well as all his medicines. His appetite, which had never entirely disappeared, became more urgent, and he was allowed to eat freely. Indeed his diet had been liberal throughout. The respiratory sound gradually returned to the backs, but continued as it had done throughout, free from râle. The voice continues to improve, but still retains a huskiness. The caustic was applied twice the two first days; aftewards but once a-day, the sponge never being introduced more than once at the same visit.

This is a case of croup in which the disease was obviously limited to the trachea, if not to the larynx, and in this respect was as favorable for the application of the peculiar treatment as it could be. In the majority of cases, from my own observation, the disease extends more or less into the lungs.

Of five *post-mortems* which I have made, in one case disease was limited to to the larynx and upper part of the trachea. In the other four it extended far into the lungs, in one producing chronic pneumonia, of which the child died after recovering from the croup. In such cases one would not expect much from the treatment, since the application could only be made over a very small extent of the diseased surface. It is as yet, however, not very well understood precisely where the obstruction takes place, which occasions the death in croup. It is probable that it varies greatly in different cases. I have seen once or twice, in *post-mortem* examinations, the trachea and larynx so thinly coated, and to such a limited extent, that it seemed impossible that it should not have been sufficiently free for respiration, while the large bronchi of the lungs on both sides were almost entirely obstructed by thick tenacious mucus. In such cases the source of death is probably obstruction of the bronchi. But from the great relief which is almost always given by the rejection of pieces of false membrane, and from the frequency of its occurrence (indeed, since attention has been drawn to the point, I think there are few cases occur in which it is not observed), it is probable that the cause of death is generally in the trachea, and most frequently at the upper part, or in the larynx. The latter fact would be indicated by the almost universal, if not universal, temporary relief which the operation of tracheotomy gives in these cases. If this part, then, could be kept free, the chances would be greatly increased of the child's being able to struggle against the disease.

The cases in which I have applied the nitrate, or seen it applied, to inflammatory affections of patients in which there was a tendency to this deposit upon the mucus membrane, have been as yet few, but it has certainly appeared that the application had much efficiency in keeping the membrane clear.

This is one case of recovery. My own observation would furnish nothing more in favor of any other treatment. Of fourteen cases of croup which I have either attended myself or seen during their course, four have recovered. In one of the cases of recovery, there was no treatment. The child was so violent that nothing could be done. The disease was left literally to its natural course. In the second case the treatment was essentially opiate. In the third case, the steaming was applied more efficiently than I have ever seen it in any other case. The fourth case was the present. An interesting point in this case was the speedy recovery of the voice. The child spoke loud at the end of a week after the treatment

commenced. In all other cases of recovery which I have known, the absence of the voice has continued for many weeks; five or six has, I think, been the shortest limit.

The case is valuable, also, as showing that a sponge saturated with so strong a solution of nitrate of silver, can be introduced into the larynx of a child not only with safety, but, after the first application, with so little inconvenience.—*Boston Med. and Surg. Journal.*

Since reading the above case, an article by Dr. Blakeman, of New York, in the American Quarterly retrospect, has been pointed out to me, according to which he has employed this same treatment with success.

Boston, Dec. 16, 1847.

A case of Spontaneous Evolution of the Fœtus. By N. W. Cole, M. D., of Burlington, N. J.—On the evening of 10th of October, I received a message from my friend Dr. Haines, to visit with him a female in labor of her eleventh child, to whom he had been called in the afternoon, and to bring with me my instruments. The Doctor informed me that upon his arrival he found one child born, and that another was presenting, with the shoulder and its right arm protruding. He stated also that he had made several unsuccessful attempts to turn. Upon examination I found everything as above stated. The labor pains had entirely ceased, from the time of the birth of the first child. Its waters evacuated, and the uterus was closely and rigidly contracted around its body, so much so that after repeated efforts, I was obliged to abandon all idea of turning without using more force than would be justifiable.

While preparing the necessary instruments for taking the child away, (it was dead beyond all doubt—there being no pulsation from the time of my arrival) the mother's pains returned; and Dr. Haines, who was sitting with her, observed the child to be lower down. I immediately made an examination, and found that some change was taking place. Its body seemed to descend, and I distinctly felt its shoulder ascend. In less than five minutes from the return of the pains, it had made a complete somerset. The feet and breech came down, and the head followed without any difficulty. It was healthy, and of the average size.

Note. We regret that Dr. Cole has not had time to give us a statement of his views upon the rationale of the process

which he has described. The case is certainly an interesting one, and we take the liberty of mentioning one or two additional facts which we have obtained from conversation with Drs. Cole and Haines. Upon examination, the head of the child was distinctly felt lying on the left side of the pelvic cavity. The jaw and the ear were readily distinguished, and the hand was so far protruded that there could be no mistake as to the character of the presentation. The breech could not have presented at the os-uteri, and the hand in the vagina, by reason of this extremity lying upon the side of the body, as was the fact in a case reported by Dr. Gooch, or the head and face could not have been so distinctly felt, or the hand found protruding outside the vagina.

The case first reported by Dr. Denman, we believe in 1772, was, as we apprehend, similar to that reported by Dr. Cole and the term "spontaneous evolution" was adopted by that distinguished author. Dr. Douglass, however, in 1811, proposed the term "spontaneous expulsion," as more expressive. Supposing that Dr. Denman's explanation was incorrect, and that the thorax became partially doubled upon itself, and the fœtus expelled while the head remained in its original position, as it were a fixed point; the side of the thorax and abdomen passing rapidly over the perinæum, leaving the head and other arm to complete the last stage of labor. But Dr. Cole informs us, that as the pains increased, "the body seemed to descend, and I distinctly felt its shoulder ascend." This ascent of the shoulder continued until the arm was carried completely up into the uterus, and the breech and feet spontaneously took its place. Here then was a clear and distinct evolution;—to use the graphic term of Dr. C., a "complete somerset;" and after an obstetric practice of half a century, this case has presented to him the first exemplification of Dr. Denman's theory. We gladly give the article a place in our journal, and hope to hear from its author again. Ed.—*New Jersey Med. Reporter.*

THE WESTERN JOURNAL.

THIRD SERIES.—VOL. I.—NO IV.

LOUISVILLE, APRIL 1, 1848.

PROGRESS OF THE USE OF CHLOROFORM.

While the instances in which Chloroform has been used with safety and the most perfect success are counted now by thousands, we have to record at least one case in which there is good reason to believe that it caused the death of an individual. This case, reported by the editors of the Western Lancet, will be found in another department of this Number, and will not fail to command the attention of the reader. Our opinion is that this result ought not to have occurred from the use of the agent. It seems, in the first place, that the woman breathed the vapor from an instrument, which had the effect of excluding the atmosphere to a great extent. This was wrong, for it has been found that asphyxia is apt to take place when either chloroform or ether is thus administered. In the next place, the professional gentlemen do not appear to have watched the effects of the agent upon the pulse; and then, when asphyxia did occur, they left her sitting in the operating chair, instead of placing her at once in the recumbent posture. Of course, it is impossible to say, that, under these altered circumstances the catastrophe would not have happened, but it appears highly probable to us that it would not.

We find another fatal case from the use of chloroform reported in a newspaper, and although it requires confirmation, we deem it proper to quote it, that, as we have borne strong testimony to the virtues of the new anæsthetic, the reader may have likewise whatever testimony there may be against it.

"A young lady, daughter of Mr. MacDonald, a baker in Catharine street, New York, recently met her death in the most awful manner, from the use of this now fashionable but most dangerous preparation. About three weeks ago, the ether was employed to allay the tooth-ache; but subsequently the sufferer was supposed to die, from what cause does not appear. The apparent death, however, was only a trance, or protracted swoon; for, on opening the coffin a day or two ago, the unfortunate girl had turned round upon her face, and in her agony and desperation had actually destroyed two of her fingers, on recovering from her temporary death by ether. The Coroner's investigation should elicit the fact as to who prescribed a remedy which produced this most frightful result."

We will only add, at present, that, since our last report on this subject, chloroform has been administered by our professional friends, in this city, in a variety of cases, and, in all, with satisfactory results; and that our own experience with it has served to heighten our estimate of its value. Professor Miller has just told us that he gave it to a lady in labor a few nights ago with the most pleasing effects. The lady was of very full habit, and the Doctor hesitated about using an agent which was supposed to favor convulsions and apoplexy, but she was urgent, and he yielded to her importunities. She declared after the child was born, that although she was conscious of its birth, she felt no pain, and that chloroform was the greatest discovery in the world. Among other applications, we gave it to a little boy suffering with ear-ache, a few evenings since, and were gratified to see him, after a few inhalations, fall into a quiet, natural sleep. He was relieved of the pain, which was probably neuralgic.

Practitioners, however, cannot be too cautious in the use of an agent of so much power. The state of the pulse and of the respiratory function ought to be watched incessantly, and the first indications of an approach of asphyxia met by the appropriate remedies.

KENTUCKY INSTITUTION FOR THE BLIND.

The Sixth Annual Report to the Legislature of Kentucky of the Managers of this valuable School has been sent to us. The number of pupils is 31. During the year four from Indiana have been withdrawn, which we mention for the purpose of adding, that they have been placed in a school at Indianapolis, recently established by that state. We congratulate our young sister (in part a daughter of Kentucky) on this creditable enterprise, in addition to one still more important in its character and bearings, the establishment of an Asylum for the Insane, in the same city; which we understand, will, in the course of the present year, be so far completed as to receive patients.

We learn from the Report before us, that—

"The entire number of pupils received into the Institution, since it was opened for the reception of pupils in 1842, is fifty-three; thirty-two males, and twenty-one females. Of these, only fifteen were born blind; the blindness of thirty-eight was the result of disease or accident."

We cannot but feel and express our surprise, that the number should not have been greater. How slowly inventions for the mere relief of infirmity unaccompanied with pain or danger, make their way among the mass of the people! During the past year, according to the Report, the Director, Mr. Patten, with some of the pupils, visited 15 counties of the State, and "found many blind persons sitting in darkness, ignorance, and helplessness, without hope either for the present or the future state of existence!" That the number in the State is such that the School ought at this period to have more than four times as many as are reported, we cannot doubt. If a more efficient hemp-break had been offered to the people of Kentucky six years ago, it would ere this have spread over the whole State. A man will eagerly adopt a new means of making money, while he reads with indifference, of an establishment for the education of his unfortunate blind child! A sad commentary on human nature. We would again exhort our brethren throughout Kentucky, and in such of the adjoining States as have not established schools for the blind, to exert all the influence in their power, within their respective spheres of action, in making known the existence and advantages of the school, that those who are now vegetating in darkness, may be brought under its beneficial and cheering advantages.

SANITARY SURVEYS.

Dr. Edward Jarvis, for some years a citizen of this place, has sent us from Boston a memorial of the American Statistical Association to the Legislature of Massachusetts, praying that honorable body to institute a sanitary survey of the State. The doctor, exceedingly well qualified for the duty, appears as chairman of the committee to which the preparation of the memorial was referred, and we presume it was from his pen. As surveys of this kind are unknown in the West, we give the following extracts from the opening of the memorial, setting forth what the British, French, Belgian and some other European governments have done or are doing on this subject.

"These governments, by especial commissioners or otherwise, have caused sanitary surveys to be made of their respective nations, and thus have learned and published the state of the health and the value of life among the people.

"These sanitary surveys and reports have revealed great differences in the amount of health, strength, and productive power, and in the duration of life, enjoyed by people in different places, and in different classes and conditions of people in the same place; and they have traced and referred many of the diseases to causes which appear to be removable or preventable."

The memorial expresses the opinion "that similar differences of health and longevity may be found in this State, (Massachusetts,) and that many diseases here may likewise be traced to causes that may be removed or prevented."

It contains a variety of interesting facts and views designed to enforce on the Legislature of Massachusetts the propriety of the survey which it proposes.

A tabular view is given of the average duration of life in the different counties of that State, for two years in some and a much longer period in others. The mean term of all the deaths is 32 years 9 months and 28 days—the longest, 40 years and 10 months—the shortest, 22 years 8 months and 19 days. This is in Boston, and shows in a conclusive manner the greater brevity of life in the city than the country. The memorial goes on to say that the Legislature has made geological, trigonometrical and agricultural surveys of the State, has investigated its manufactures, and indirectly, through societies, encouraged farming and improvements of the breeds of domestic animals; when it very properly remarks—

"If these external interests have been deemed worthy of the attention

of the Legislature, it would seem that man, the owner and the enjoyer of all these, who is himself a part and parcel of the commonwealth, is much more worthy of legislative interest; and if it is of sufficient consequence to legislate for the growth and strength of cattle, it is of much more consequence to legislate for the health and strength of him for whom alone these creatures are allowed to live. It is not to be expected that any act or power of the government can directly cause a man to be healthy; but it can work as effectually for this as it can to make wheat grow, or an ox become fat. As it has done in regard to animal and vegetable life, the government can search out the circumstances the most favorable to its development and maintenance, and the habits and methods by which it is made most vigorous and enduring."

In reference to this important object the memorial says—

"The first step in this work will be to inquire where and among what classes life is best developed and longest sustained, and where disease is the most prevalent and fatal, and death the most frequent. The next is, to ascertain what are the differences between these places and classes, what differences in the location and what in the circumstances and habits of the people who have such various degrees and amount of life. Having ascertained what and where these injurious causes are, it may then be possible, and perhaps easy, to remove them where they already exist, or to prevent their establishment in places where they have not as yet appeared; and thus the amount of health and the sum of life may be increased among the people."

Our limits do not permit a more extended notice of this appeal to the Legislature. We do not know the result, but sincerely hope it has been, or will be successful, and that Massachusetts will set an example to be speedily followed by other States.

RANKING'S HALF-YEARLY ABSTRACT.

We have received the sixth number of this valuable Abstract of the Medical Sciences, and are able to state that the work maintains the high character which it has attained among the periodical publications of the day. We do not see how physicians who are not readers of the Half-Yearly Abstract, or of some medical journal, can pretend to know whether our profession is making any progress. With such a multitude of journals before them, practitioners in America are inexcusable who neglect to avail themselves of the rich source of instruction afforded by these publications.

MUNIFICENT CONTRIBUTION TO MEDICAL EDUCATION.

Some twelve or fourteen years ago, a medical school was commenced under the name of Willoughby University, in the humble village of Chagrin, now Willoughby, eighteen miles from Cleveland, Ohio, on the banks of Lake Erie. A few years since, most of the Faculty left it for the more eligible city just named. Their places were supplied by others, who, however, soon felt the disadvantages of the position; and, with the sanction of their trustees and the Legislature of Ohio, they transferred the institution to Columbus, the seat of government. There it attracted the regard of LYNE STARLING, Esq., an old and respected citizen, formerly of Kentucky, who during the past winter made to it the liberal donation of THIRTY THOUSAND DOLLARS—two-thirds to be expended in the erection of a college edifice, and one-third in founding a hospital for clinical instruction. It gives us great pleasure to record this act of liberality, and we trust that all our readers will honor the name of Starling, as those to whom the money was given have done; for by an alteration in the charter, the school is henceforth to be entitled THE STARLING MEDICAL COLLEGE.

With the aid of this ample endowment, we trust the Faculty will venture to advance the price of their tickets, which is now only eight dollars each. We would not insist that in a region where the charges of physicians are lower than in many other parts of the country, they should be required, while studying, to pay the highest price for their tickets; but that just named is too low, and ought to be advanced to twelve dollars at least. Such an advance is due to the benefactor of the College.

The annual announcement, from which we have obtained the foregoing particulars, presents a catalogue of one hundred and thirty-eight pupils, of which twenty-five, or about eighteen per cent, are marked as practitioners. This number struck us as large, and taking up the Catalogue of the University of Louisville, we found that the whole number thus marked was, in four hundred and six, but sixteen, or a fraction less than four per cent. If a great number of the physicians of Ohio have gone into practice before graduating, it is cheering to find that so many have not lost sight of the duty of perfecting their university education. We hear much from the people about the great number annually graduated by our schools; but they ought rather to dread the still greater number who engage in practical duties without graduating—many, indeed, notwithstanding the great number of schools, without attending a single course of lectures in any.

ALLOPATHY VERSUS HOMŒOPATHY.

To argue that the hundred-millionth part of a thousand-billionth of a grain of one of our common medicines can exert *no* influence on the living body, seems much like attempting to prove a negative, or vanquish a ghost with sword and pistols; yet that is the enterprise in which our esteemed colleague, Professor MILLER, was engaged, when he delivered, before the Medical Society of Louisville, a discourse, of which its Secretary has sent us a copy. What it was which provoked that sober-minded and deep-thinking Professor into this question, we do not even venture to guess. Whatever it might have been, it was an active stimulant, for his arguments and sarcasms were not dealt out in homœopathic doses. We fear, however, that it will turn out that all his allopathy has failed to cure the disease. Its roots, like those of a cancer, are too deeply infixed in the human mind to be eradicated, however sturdy the arm which wields the mattock. We ought rather to say, that the diathesis of ignorance and credulity, like the cancerous, will reproduce the disorder, in spite of all excision, and that until *it* shall be corrected, there can be no cure. Meanwhile, it is quite as well to administer argument and reproof in homœopathic doses—and those few and far between.

The sum and substance of all beneficial homœopathic practice may be comprised under three heads: 1, the disuse of medicines when their action is injurious; 2, abridgement of diet; 3, the use of active medicines by *physicians* who declaim against them, and *profess* to have laid them aside for infinitesimal portions; all of which benefits might be attained without resorting to the ridiculous visions of Hahnemann. But lest we should violate our own canon by transcending a homœopathic dose, we shall dismiss the subject.

AMERICAN MEDICAL ASSOCIATION.

It is, we suppose, generally known to our readers, that the *National Medical Convention*, at the close of its second meeting, in Philadelphia, May 1847, resolved itself into a permanent society, under the title of AMERICAN MEDICAL ASSOCIATION; and adjourned to meet in Baltimore on the first Tuesday in May of the present year. It is to remind the profession in the West, of the meeting which will take place within a few weeks of this time, that we write this notice. As the proceedings of

the Convention may not have reached many parts of the country, we extract those portions of the second section of the Constitution, which relate to the election of members.

"The members of this institution shall collectively represent and have cognisance of the common interests of the medical profession in every part of the United States, and shall hold their appointment to membership either as delegates from local institutions, as members by invitation, or as permanent members.

"The delegates shall receive the appointment from permanently organized medical societies, medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions of good standing in the United States. Each delegate shall hold his appointment for one year, and until another is appointed to succeed him, and shall participate in all the business and affairs of the association.

"Each local society shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate.

"The members by invitation shall consist of practitioners of reputable standing, from sections of the United States not otherwise represented at the meeting. They shall receive their appointment by invitation of the meeting, after an introduction from any of the members present, or from any of the absent permanent members. They shall hold their connection with the association until the close of the annual session at which they are received, and shall be entitled to participate in all its affairs as in the case of delegates. The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote."

We ardently hope, that the various schools and societies of the interior, will send delegates, not only to the first, but every subsequent meeting of the society; and that many unofficial members of the profession will attend and become *members by invitation!* A number of Reports on important subjects will be read and discussed, and provision is, also, made for the reception of papers on medical and scientific subjects, from all or any member of the Association. Thus the meeting cannot fail to be one of deep and profitable interest, not only to its members, but the profession at large.